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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA CR-

141545
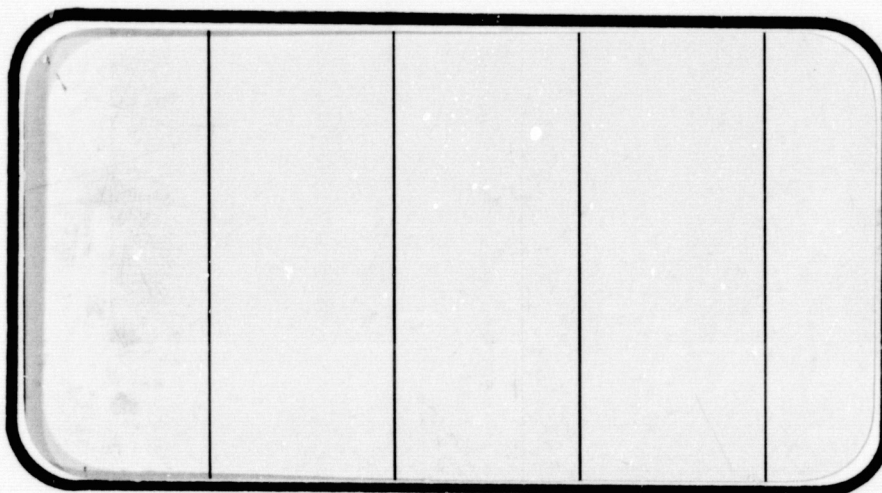
(NASA-CR-141545)   RESULTS OF A JET PLUME   N75-27049
EFFECTS TEST ON THE ROCKWELL INTERNATIONAL
INTEGRATED SPACE SHUTTLE VEHICLE USING A
VEHICLE 5 CONFIGURATION 0.02-SCALE MODEL   Unclas
(88-OTS) IN THE 11 BY 11 FOOT LEG OF THE   G3/18 28870

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANagement services

SPACE DIVISION **CHRYSLER** CORPORATION

June, 1975

DMS-DR-2170
NASA-CR-141,545
RESULTS OF A JET PLUME EFFECTS TEST
ON THE ROCKWELL INTERNATIONAL INTEGRATED
SPACE SHUTTLE VEHICLE USING A VEHICLE 5
CONFIGURATION 0.02-SCALE MODEL (88-OTS)
IN THE 11 x 11 FOOT LEG OF THE NASA/AMES
RESEARCH CENTER UNITARY PLAN WIND TUNNEL (IA19)
VOLUME 3 OF 3

By

M. E. Nichols
Wind Tunnel Operations
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By

Data Management Services
Chrysler Corporation Space Division
New Orleans, La.   70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

    Test Number   ARC 11-014
    NASA Series Number: IA19
    Model Number: 88-OTS
    Test Dates: 9-16 through 9-24-74
    Occupancy Hours: 120

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RESULTS OF A JET PLUME EFFECTS TEST

ON THE ROCKWELL INTERNATIONAL INTEGRATED

SPACE SHUTTLE VEHICLE USING A VEHICLE 5

CONFIGURATION 0.02-SCALE MODEL (88-OTS)

IN THE 11 x 11 FOOT LEG OF THE NASA/AMES

RESEARCH CENTER UNITARY PLAN WIND TUNNEL (IA19)

By

M. E. Nichols, Rockwell International Space Division

ABSTRACT

Presented in this report are results of jet plume effects Test IA19 using a Vehicle 5 configuration integrated Space Shuttle Vehicle 0.02-scale model in the NASA/Ames Research Center 11 x 11-foot leg of the Unitary Plan Wind Tunnel. Testing was conducted between 16 September and 24 September 1974.

The primary objective of this test was the determination of jet plume power effects on the integrated vehicle static pressure distribution. Secondary objectives were to determine: 1) elevon, Main Propulsion System nozzle and Solid Rocket Booster nozzle effectiveness and 2) elevon hinge moments. MPS and SRB nozzle conditions were set according to calibration data obtained at Rockwell International/Rocketdyne Division's Rocket Nozzle Test Facility.

Mach numbers tested were at 0.90, 1.10, 1.25 and 1.40. Angle of attack was varied from -8° to +8° while the angle of sideslip was varied from -4° to +4°. Reynolds number was changed with Mach number, as shown in Table 1.

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PLOTTED COEFFICIENTS SCHEDULE:

A) CHEI, CHEO, CABO, CABS, CABT versus ALPHA

B) CHEI, CHEO, CABO, CABS, CABT versus BETA

C) DCHEI, DCHEO versus ALPHA

D) DCHEI, DCHEO versus BETA

E) CHEI, CHEO, CABO, CABS, CABT versus MACH

F) CP versus X/L

G) DELCP versus X/L

H) CP versus X/C

I) DELCP versus X/C

J) CP versus PHI

K) DELCP versus PHI

INTRODUCTION

A vehicle 5 configuration 0.02-scale Integrated Space Shuttle Model was tested in the ARC Unitary Plan Wind Tunnel. The testing was conducted in the 11 x 11-foot section between 16 September and 24 September 1974. Cold flow through the Main Propulsion System (MPS) nozzle and the Solid Rocket Booster (SRB) nozzle was used to simulate jet plume effects. This test was designated IA19.

This report for the IA19 test contains a tabular listing of all source force and pressure data. Selected force plots that illustrate power setting effects on the integrated vehicle static axial pressure distribution and elevon hinge moment are included. These plots also show elevon control deflection effectiveness and the effect of gimbal control deflection. Pressure plots that illustrate power setting effects on the local pressure distribution for the Orbiter, External Tank (ET) and SRB are also included. This information is arranged in the following manner:

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The pressure data were recorded for each component. The fourth character in each dataset identifier (i.e., REUBXX, B for fuselage) represents the individual component. The following list indicates the symbol for each component.

SYMBOL	COMPONENT
B	Orbiter fuselage
E	Upper body flap surface
F	Lower body flap surface
G	Orbiter base
I	External tank base
K	SRB base
R	Upper wing surface
S	Solid Rocket Booster (SRB)
T	External tank
V	Vertical tail surface
W	Lower wing surface

NOMENCLATURE
General

SYMBOL	SADSAC SYMBOL	DEFINITION
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m^2, psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m^2, psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m^3, $slugs/ft^3$

Reference & C.G. Definitions

A_b		base area; m^2, ft^2
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
ℓ_{REF} $\bar{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m^2, ft^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b		base
l		local
s		static conditions
t		total conditions
∞		free stream

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NOMENCLATURE (Continued)

Body-Axis System

SYMBOL	SADSAC SYMBOL	DEFINITION
C_N	CN	normal-force coefficient; $\dfrac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\dfrac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\dfrac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\dfrac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\dfrac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CYN	yawing-moment coefficient; $\dfrac{\text{yawing moment}}{qSb}$
C_ℓ	CBL	rolling-moment coefficient; $\dfrac{\text{rolling moment}}{qSb}$

Stability-Axis System

C_L	CL	lift coefficient; $\dfrac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\dfrac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\dfrac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\dfrac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\dfrac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CLN	yawing-moment coefficient; $\dfrac{\text{yawing moment}}{qSb}$
C_ℓ	CSL	rolling-moment coefficient; $\dfrac{\text{rolling moment}}{qSb}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

Symbol	SADSAC Symbol	Definition
A_i		model base area, denoted by associated tap number subscript, ft^2
$C_{A_{B_O}}$	CABO	Orbiter base axial force coefficient
$C_{A_{B_S}}$	CABS	SRB base axial force coefficient
$C_{A_{B_T}}$	CABT	ET base axial force coefficient
$\bar{c}_E$		M. A. C. of total elevon panel (inbd plus outbd), in.
CH_{EI}	CHEI	hinge moment coefficient for inboard elevon
CH_{EO}	CHEO	hinge moment coefficient for outboard elevon
CH_{ET}	CHET	total elevon hinge moment coefficient
Cp_i		model pressure coefficient, denoted by a subscript i
CPR_j	PR	ratio of prototype nozzle chamber pressure to freestream static pressure, denoted by a subscript j
EPR_j		ratio of nozzle exit pressure to freestream static pressure, denoted by a subscript j
HM_{EI}		hinge moment of inboard elevon, in-lbs
HM_{EO}		hinge moment of outboard elevon, in-lbs
Pc_j		nozzle chamber pressure, denoted by a nozzle number subscript, psia
Pe_j		nozzle exit pressure, denoted by a nozzle number subscript, psia
S_E		total elevon planform area for one wing panel, ft^2

ℓ	L	length of body, in
b/2	B	wing semi-span, in
b_v	BV	vertical tail span, in
x	X	distance from component nose, in
y	Y	lateral distance from centerline, in
z	Z	vertical distance measured from W. L. 500 (vertical tail reference root chord), in
c	C	local wing chord, in
c_v	CV	local vertical tail chord, in
x/ℓ	X/L	longitudinal position/body length
x/c	X/C	local chordwise position/local wing chord length
x/c	X/CV	local chordwise position/local vertical tail chord length
η	2Y/B	local spanwise position/wing semi-span
η_v	Z/BV	local spanwise position/vertical tail span
ΔC_p	DELCP	pressure coefficient increment due to power/plume effect, power on - power off
ΔCH_{EI}	DCHEI	hinge moment coefficient increment for inboard elevon due to power/plume effect, power on-power off
ΔCH_{EO}	DCHEO	hinge moment coefficient increment for outboard elevon due to power/plume effect, power on-power off
	OFF LOW NOM HI	MPS and SRB power settings, see Tabulated Force Data for specific values of pressure ratio

NOMENCLATURE (Concluded)

$T_{T_{MPS}}$ MPS air supply total temperature, °R

$T_{T_{SRB}}$ SRB air supply total temperature, °R

Angles:

α_{N_j} pitch-angle of nozzle centerline in a plane parallel to the plane of symmetry, degrees

ψ_{N_j} yaw-angle of nozzle centerline in a plane parallel to a waterline plane, degrees

γ_{N_j} pitch-angle of nozzle centerline in a plane which yaws with the nozzle, degrees

Subscripts:

E	ELV	elevon
i		surface tap number
j		nozzle number
I	IB	inboard
O	OB	outboard
N		nozzle
1		top MPS nozzle
2		L. H. MPS nozzle
3		R. H. MPS nozzle
4		L. H. SRB nozzle
5		R. H. SRB nozzle
T		total condition

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DATA REMARKS

Good data confidence can be attributed to Test IA19 on the basis of model and instrumentation performance throughout the test program.

Hinge-moment data, for the inboard and outboard elevons, should be good in all cases presented, as no particular anomalies occurred.

Surface pressure-tap data is also trustworthy, as very few taps consistently indicated any plugged or leaking conditions during repeated Scanivalve-system checks.

Some scatter and error, on the order of 2 percent of the maxima, is to be expected in the measured and computed SRB nozzle chamber-pressure parameters. Pressure variations during the runs account for some scatter, and a correction term had to be applied to precalibrated values when the pressure probes for the SRB nozzles failed during the test.

CONFIGURATIONS INVESTIGATED

The 88-OTS model was a 0.02-scale representation of the Launch-Configuration Space Shuttle Vehicle 5, with Solid Rocket Motor and Main Propulsion System plume-simulation capability.

Various elevon settings and nozzle gimbal angles were set during the test to determine incremental effects of control deflections, as shown in the run-schedule (collation) sheets, Table 2.

Nozzle chamber-total pressures were controllable for appropriate plume-shape simulations. The nozzles were precalibrated by Rockwell.

The model was instrumented as follows:

1) 362 model surface pressure taps (See Table IV) monitored by 11 scavivalve modules in 3 gangs.

2) 5 nozzle chamber-total pressure probes monitored by large capacity transducers.

3) 5 nozzle exit-static pressure taps monitored on separate transducers.

4) Inboard and outboard elevon hinge-moment strain gauges on the left wing.

5) Total-temperature thermocouple probes in the SRM and MPS air-supply systems.

6) Pendulum dangeleometer mounted in the ET for angle-of-attack measurements.

The following nomenclature was used to designate model components:

Component	Defintion
AT_{28}	Attach structure
AT_{31}	Attach structure
AT_{32}	Attach structure

B_{62}	Body
C_{12}	Canopy
E_{52}	Elevon
F_{10}	Body flap
FL_{10}	Feedline
FL_{11}	Feedline
FR_{10}	Aft attach cross beam
M_{16}	OMS pod
N_{87}	MPS nozzles
N_{88}	SRB nozzle
N_{89}	OMS nozzles
PS_{11}	SRB protuberances
PS_{12}	SRB protuberances
PS_{13}	SRB protuberances
PS_{14}	SRB protuberances
PS_{17}	SRB protuberances
PS_{18}	SRB protuberances
PS_{19}	SRB protuberances
PT_{12}	ET protuberances

CONFIGURATIONS INVESTIGATED (Concluded)

PT_{22}	ET protuberances
PT_{23}	ET protuberances
PT_{24}	ET protuberances
PT_{25}	ET protuberances
PT_{26}	ET protuberances
PT_{27}	ET protuberances
R_5	Rudder
S_{22}	Solid rocket booster
T_{28}	External tank
V_8	Vertical tail
W_{127}	Wing

TEST FACILITY DESCRIPTION

The Ames Research Center Unitary Plan 11- by 11-foot Transonic Wind Tunnel is a closed-circuit, air-medium, variable-density facility capable of attaining Mach numbers from 0.6 to 1.4 at Reynolds numbers from 1.7×10^6/ft to 9.4×10^6/ft. The test section is 22 feet long, and models are installed on internal strain-gauge balances mounted to sting-type support systems.

Shadowgraph and Schlieren photographic equipment is available, and pressure transducer instrumentation is provided.

Tunnel operating temperature is 580°R. Extended high Reynolds number runs are restricted by power availability.

DATA REDUCTION

The data reduction procedures for Test IA19 involve calculation of: operating nozzle chamber-total and exit-static pressures and pressure ratios for the SRB and MPS nozzles, elevon (inboard and outboard) panel hinge moments and hinge-moment coefficients, and pressure coefficients for the 362 static taps on the Orbiter, External Tank, and Solid Rocket Boosters.

Equations used for reduction of data were as follows:

a) Elevon hinge moment:

$$C_{H_{EI}} = \frac{HM_{EI}}{q \; S_E \; \bar{c}_E}$$

$$CH_{EO} = \frac{HM_{EO}}{q \; S_E \; \bar{c}_E}$$

$$C_{H_{ET}} = CH_{EI} + CH_{EO}$$

b) Nozzle pressure parameters:

$$CPR_j = \frac{Pc_j}{P_\infty} \qquad\qquad j = 1 \rightarrow 5$$

$$EPR_j = \frac{Pe_j}{P_\infty} \qquad\qquad j = 1 \rightarrow 5$$

c) Model pressure coefficients:

$$Cp_i = \frac{P_i - P_\infty}{q}$$

$i = 101 - 172$ Top of Rt. wing

$i = 201 - 265$ Bottom of Rt. wing

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i = 301 - 389 Orbiter fuselage

i = 401 - 439 Rt. side of vertical tail

i = 501 - 573 External tank

i = 601 - 624 Rt. SRB

d) Base pressure coefficients:

$$C_{A_{B_S}} = \sum_{i=621}^{624} \frac{Cp_i \, A_i}{S}$$

$$C_{A_{B_0}} = \sum_{i=369}^{381} \frac{Cp_i \, A_i}{S} \qquad C_{A_{B_T}} = \sum_{i=541}^{573} \frac{Cp_i \, A_i}{S}$$

The following reference dimensions and constants were used in the reduction of data:

Base Areas

Model Scale, Ft^2	Model Scale, Ft^2	Model Scale, Ft^2
A_{369} = 0.0000	A_{541} = 0.0066	A_{558} = 0.0089
A_{370} = 0.0095	A_{542} = 0.0008	A_{559} = 0.0089
A_{371} = 0.0095	A_{543} = 0.0008	A_{560} = 0.0089
A_{372} = 0.0074	A_{544} = 0.0008	A_{561} = 0.0089
A_{373} = 0.0074	A_{545} = 0.0008	A_{562} = 0.0133
A_{374} = 0.0081	A_{546} = 0.0012	A_{563} = 0.0177
A_{375} = 0.0049	A_{547} = 0.0016	A_{564} = 0.0177
A_{376} = 0.0024	A_{548} = 0.0016	A_{565} = 0.0177
A_{377} = 0.0049	A_{549} = 0.0016	A_{566} = 0.0177

$A_{378} = 0.0081$

$A_{379} = 0.0095$

$A_{380} = 0.0060$

$A_{381} = 0.0095$

$A_{621} = 0.0119$

$A_{622} = 0.0119$

$A_{623} = 0.0119$

$A_{624} = 0.0119$

$A_{550} = 0.0016$

$A_{551} = 0.0016$

$A_{552} = 0.0016$

$A_{553} = 0.0016$

$A_{554} = 0.0008$

$A_{555} = 0.0008$

$A_{556} = 0.0008$

$A_{557} = 0.0008$

$A_{567} = 0.0177$

$A_{568} = 0.0177$

$A_{569} = 0.0177$

$A_{570} = 0.0133$

$A_{571} = 0.0089$

$A_{572} = 0.0089$

$A_{573} = 0.0089$

Reference Dimensions	Full Scale	Model Scale
$\bar{c}_E$	90.7 in.	1.814 in.
S_E	210 ft^2	0.0840 ft^2
S	2690 ft^2	1.076 ft^2

TABLE I.

TEST : IA19			DATE : 9-24-74

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per foot)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.9	4.35×10^6	4.93	150
1.10	4.64×10^6	5.83	150
1.25	4.70×10^6	6.18	150
1.40	4.55×10^6	6.32	150

BALANCE UTILIZED: _____

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	_____	_____	_____
SF	_____	_____	_____
AF	_____	_____	_____
PM	_____	_____	_____
RM	_____	_____	_____
YM	_____	_____	_____

COMMENTS:

TABLE II.

TEST: IA19 ARC11 97-014 DATA SET/RUN NUMBER COLLATION SUMMARY **DATE: 9/24/74**

DATA SET IDENTIFIER	CONFIGURATION		SCHD.		CONTROL DEFLECTION				NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) α							
			α	β	S_{pI}	S_{pO}	S_R	S_{PE}	MFC	MACH	-8	-4	0	4	8	S_1*	S_2*	S_3*
REU001	OTS (WITH STRUT & TUFTS)			B	8	4	0	off	off	0.9		52	53	54		U16°	U10°	U10°
02										1.1		37	38	39				
03										1.25		1	2	3				
04								↓	↓	1.4		65	25	24				
05								NOM	NOM	0.9		57	56	55				
06										1.1		43	44	45				
07										1.25		10	11	12				
08								↓	↓	1.4		26	27	28				
09								LOW	NOM	0.9		69	70	71				
10										1.1		49	50	51				
11										1.25		7	8	9				
12								↓	↓	1.4		35	33	34				
13								NOM	OFF	0.9		60	58	59				
14										1.1		48	47	46				
15	↓									1.25		13	14	15				
16				↓	↓	↓	↓		↓	1.4		29	30	31		↓	↓	↓

```
1      7      13      19      25      31      37      43      49      55      61      67      75 76
SRBPR  MPSPR  CHEI,  CHEO,  CABO,  CABT,  CABS,  CP,      MACH              ALPHA  BETA
```

α OR β SCHEDULES:
B> @ $\alpha = -4$, $\beta = 0$ COEFFICENTS
$\alpha = 0$, $\beta = -4, 0, 4$
$\alpha = 4$, $\beta = 0$
$\alpha = -8, +8$, $\beta = 0$

* MPS NOZZLE DEFLECTION (EXAMPLE: U16° = UP 16 DEG.)   IDVAR (1)   IDVAR (2)   NDV

TEST RUN NUMBERS

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TABLE II. - Continued.

TEST: IA19 ARC II,97-014 **DATA SET/RUN NUMBER COLLATION SUMMARY** **DATE:** 9/24/74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	SEI	SEO	SR	SPB	NO. OF RUNS	MPS	MACH	-8	-4	0	4	8	δ1*	δ2*	δ3*
REU017	OTS (WITH STRUT & TUFTS)		B	B	4	0	HI		HI	0.9		66	67	68		U16	U10	U10
18										1.1		40	41	42				
19										1.25		18	19	20				
20										1.4		62	63	64				
21	OTS (WITH STRUT)				0		OFF		OFF	1.4		72	73	74				
22							NOM		NOM	1.4		76	77	78				
23				0			OFF		OFF	0.9		100	101	102				
24										1.1		94	95	96				
25										1.25		88	89	90				
26										1.4		82	83	84				
27							NOM		NOM	0.9		97	98	99				
28										1.1		91	92	93				
29										1.25		85	86	87				
30										1.4		79	80	81				
31							OFF		OFF	0.9		106	107	108		U18 R8	U17.15 L6.7	U7
32										1.1		124	125	126				
33										1.25		112	113	114				
34										1.4		118	119	120				

MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) α

TEST RUN NUMBERS

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1	7	13	19	25	31	37	43	49	55	61	67	75 76
SRBPR	MPSPR	CHEI	CHEO	CABØ	CABT	CABS	GP	MACH		ALPHA	BETA	

COEFFICENTS

α OR β SCHEDULES

IDVAR (1) IDVAR (2) NDV

TABLE II. - Continued.

TEST: IA 19 ARC 11,97-014	DATA SET/RUN NUMBER COLLATION SUMMARY	DATE: 9/24/74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION S_{EI}	S_{EO}	SR	SRB	NO. OF RUNS	MPS	MACH	-8	-4	0	4	8	δ_1*	δ_2*	δ_3*
REU035	OTS (WITH STRUT)		B	0	0	0	NOM		NOM	0.9		103	104	105		u18.1 88°	u17.1 66.7°	u7°
36										1.1		121	122	123				
37										1.25		109	1'0	111				
38										1.4		115	116	117				
39	OTS (NO STRUT)						OFF		OFF	0.9	161	162	163	164	165	u16°	u10°	u10°
40										1.1	151	152	153	154	155			
41										1.25	138	139	140	141	142			
42										1.4	127	128	130	131	132			
43							NOM		OFF	0.9	166	167	168	169	170			
44										1.1	156	157	158	159	160			
45										1.25	143	144	145	146	147			
46										1.4	133	134	135	136	137			
47				B			OFF		OFF	1.4	174	172	173					
48				B			NOM		OFF	1.4	175	176	177					
49				B	4		OFF		OFF	0.9	196	197	198					
50										1.1	190	191	192					
51										1.25	184	185	186					
52										1.4	178	179	180					

MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) α

TEST RUN NUMBERS

Scale: 1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICENTS   IDVAR (1)   IDVAR (2)   NDV

α OR β SCHEDULES

TABLE II. – Concluded.

TEST: IA19   ARC 11,97-014   .   **DATA SET/RUN NUMBER COLLATION SUMMARY**   **DATE:** 9/24/74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION SET	CONTROL DEFLECTION SEO	CONTROL DEFLECTION SR	CONTROL DEFLECTION SRB	NO. OF RUNS	MPS	MACH	-8	-4	0	4	8	δ₁*	δ₂*	δ₃*
REU053	OTS (NO STRUT)		B	8	4	0	NOM		OFF	0.9		199	200	201		U16°	U10°	U10°
54										1.1		193	194	195				
55										1.25		187	188	189				
56										1.4		181	182	183				
REU 57	OTS (WITH STRUT & TUFTS)						NOM +		NOM+	1.25			4	5	6			
58	repeat						LOW		NOM	1.4			32	36				
59	repeat						NOM		OFF	1.25			16	17				
60							HI		NOM	1.25			21					

TEST RUN NUMBERS

32

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |

COEFFICENTS   IDVAR (1)   IDVAR (2)   NDV

α OR β SCHEDULES

TABLE III MODEL DIMENSIONAL DATA

MODEL COMPONENT: ATTACH STRUCTURE - AT_{28}

GENERAL DESCRIPTION: Rear orbiter to ET attach structure (LH and RH)

(2 members)

MODEL SCALE: 0.020

DRAWING NO.: VC78-000002

DIMENSIONS:		FULL SCALE	MODEL SCALE
Member #1	X_o	1317.00	26.34
	Y_o	- 96.50 (LH)	- 1.93 (LH)
Attach Stations		96.50 (RH)	1.93 (RH)
	Z_o	267.50	5.35
	X_T	2058.00	41.6
	Y_T	- 125.68 (LH)	- 2.5136 (LH)
		125.68 (RH)	2.5136 (RH)
	Z_T	515.5	10.31
Member #2	X_o	1317.00	26.34
Attach Stations	Y_o	- 96.50 (LH)	- 1.93 (LH)
		96.50 (RH)	1.93 (RH)
	Z_o	267.50	5.35
	X_T	1872.00	37.44
	Y_T	- 125.68 (LH)	- 2.5136 (LH)
		125.68 (RH)	2.5136 (RH)
	Z_T	504.5	10.09
Member #1 Dia.		11.5	0.230
Member #2 Dia.		15.5	0.31

TABLE III (CONT'D)

MODEL COMPONENT: ATTACH STRUCTURE - AT_{31}

GENERAL DESCRIPTION: Rear ET to SRB attach structure (LH & RH)

(3 members)

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, VL78-000062B, VL78-000066

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Member #1	X_T	2058.00	41.16
	Y_T	- 171.50 (LH)	- 3.43
		171.50 (RH)	3.43
	Z_T	457.00	9.14
	X_s	1511.00	30.22
	Y_s	53.24	1.0648
	Z_s	57.00	1.14
Member #2	X_T	2058.00	41.16
	Y_T	- 163.85	- 3.277
	Z_T	449.81	8.996
	X_s	1511.00	30.22
	Y_s	76.56	1.5312
	Z_s	15.73	0.3146
Member #3	X_T	2058.00	41.16
	Y_T	- 161.72	- 3.2344
	Z_T	343.00	6.86
	X_s	1511.00	30.22
	Y_s	53.24	1.0648
	Z_s	- 57.00	- 1.14

TABLE III (CONT'D)

MODEL COMPONENT: ATTACH STRUCTURE - AT_{32}

GENERAL DESCRIPTION: Forward orbiter/ET attach structure (2 member structure)

MODEL SCALE: 0.020

DRAWING NUMBER: VC78-000002

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Member #1	X_O	388.15	7.763
	Y_O	0.0	0.0
	Z_O	LWR ML	LWR ML
	X_T	1129.9	22.598
	Y_T	46.50	0.930
	Z_T	562.58	11.252
Member #2	X_O	388.15	7.763
	Y_O	0	0.00
	Z_O	LWR ML	LWR ML
	X_T	1129.9	22.598
	Y_T	- 46.50	- 0.930
	Z_T	562.58	11.252
Diameter of members (In.):		6.0	0.120

TABLE III (CONT'D)

MODEL COMPONENT: BODY - B_{62}

GENERAL DESCRIPTION: Configuration 140C fuselage, MCR 200-R4.   Similar
to 140A/B except with revised aft body.

MODEL SCALE: 0.020

DRAWING NUMBER: VL70-000140C, 00200B, -00202C, -000203, -000205A

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length (OML: Fwd Sta X_o = 235),In.	1293.3	25.866
Max. Width (@ X_o = 1528.3), In.	264.0	5.280
Max. Depth (@ X_o = 1464), In.	250.0	5.000
Fineness Ratio	4.899	4.899
Area - Ft^2		
Max. Cross-Sectional	340.885	0.136354
Planform		
Wetted		
Base		

TABLE III (CONT'D)

MODEL COMPONENT: CANOPY - C_{12}

GENERAL DESCRIPTION: Configuration 140C orbiter canopy used with

Body - B_{62}

MODEL SCALE: 0.020

DRAWING NUMBER VL70-000140C, -000202B, -000204

DIMENSION:

	FULL SCALE	MODEL SCALE
Length (X_o = 434.643 to 576), In.	143.357	2.867
Max Width (@ X_o = 513.127), In.	152.412	3.048
Max Depth (@ Z_o = 501 to 449.39), In.	51.61	1.032
Fineness Ratio		
Area		
Max Cross-Sectional		
Planform		
Wetted		
Base		

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TABLE III (CONT'D)

MODEL COMPONENT ELEVON - E52

GENERAL DESCRIPTION ___ Elevon for Configuration 140C. Hingeline___

at X_0 = 1387, elevon split line X_w = 312.5, 6.0" gaps, beveled edges, and

centerbodies.

MODEL SCALE: 0.020

DRAWING NUMBER VL70-000140C, -006080, -006092, SSA-01260

DIMENSIONS (Data for one side)	FULL SCALE	MODEL SCALE
Area - Ft^2	210.0	0.0820
Span (equivalent), In. (Y_0=119.99), In.	349.2	6.984
Inb'd equivalent chord, In. (Y_0 = 469.19)	118.0	2.360
Outb'd equivalent chord, In.	55.19	1.1038
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.2096	0.2096
At Outb'd equiv. chord	0.4004	0.4004
Sweep Back Angles, degrees		
Leading Edge	0.0	0.0
Trailing Edge	- 10.056	- 10.056
Hingeline	0.00	0.00
Area Moment (Product of Area & c̄), Ft^3	1587.25	0.012698
Mean Aerodynamic Chord, In.	90.7	1.814
Hingeline dihedral (origin at Z_0 = 261.3509), deg.	5.228986	5.228986

TABLE III (CONT'D)

MODEL COMPONENT: BODY FLAP - F_{10}

GENERAL DESCRIPTION: Configuration140C Body Flap. Hingeline located
at X_o = 1532, Z_o = 287.00

MODEL SCALE: 0.020   MODEL DRAWING: SS-A01261

DRAWING NUMBER   VL70-000140C

DIMENSION:

	FULL SCALE	MODEL SCALE
Length(X_o=1525.5 to 1613), In.	87.50	1.750
Max Width(@ L.E. X_o = 1525.5), In.	256.00	5.120
Max Depth (@ X_o = 1532), In.	19.798	0.39596
Fineness Ratio		
Area - Ft^2		
Max Cross-Sectional	35.196	0.0140784
Planform	135.00	0.0540
Wetted		
Base (X_o = 1613)	4.89	0.001956

TABLE III (CONT'D)

MODEL COMPONENT: FEEDLINE FL_{10}

GENERAL DESCRIPTION: LH_2 feedline on upper left-hand side of T_{28}

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, VL78-000062B

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	2071.5	41.430
	Y_T	- 70.0	- 1.400
	Z_T	573.934	11.479
Trailing edge at:	X_T	2081.8	41.636
	Y_T	- 70.00	- 1.400
	Z_T	584.059	11.682
Diameter of line (17.0 I.D.)		18.160	0.3632

TABLE III (CONT'D)

MODEL COMPONENT: FEEDLINE - FL_{11}

GENERAL DESCRIPTION: LO_2 feedline on upper right-hand of T_{28}.

MODEL SCALE: 0.020

DRAWING NUMBER: VL78-000063, VL78-000062B

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	1000.667	20.013
	Y_T	70.00	1.400
	Z_T	150.519	3.010
Trailing edge at:	X_T	2071.5	41.43
	Y_T	70.00	1.400
	Z_T	573.934	11.479
Diameter of line (17.0 I.D.)		18.16 O.D.	0.3632

TABLE III (CONT'D)

MODEL COMPONENT: FAIRING - FR_{10}

GENERAL DESCRIPTION: Aft attach cross beam

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, VL78-000062B, MArtin Marietta 82600207000

DIMENSIONS:		FULL SCALE	MODEL SCALE
Leading edge at	X_T	2052.0	41.04
Length		193.00	3.86
Width		15.00	0.30

TABLE III (CONT'D)

MODEL COMPONENT: OMS POD - M_{16}

GENERAL DESCRIPTION: Configuration 140C OMS Pod

MODEL SCALE: 0.020

DRAWING NUMBER VI70-008401, VI70-008410 (as of 5/16/75)

DIMENSION:	FULL SCALE	MODEL SCALE
Length (OMS Fwd Sta. X_0=1310.5), In.	258.50	5.170
Max Width (@ X_0 = 1511), In.	136.80	2.736
Max Depth (@ X_0 = 1511), In.	74.70	1.494
Fineness Ratio	2.484	2.484
Area - Ft^2		
Max Cross-Sectional	58.864	0.02355
Planform		
Wetted		
Base		

TABLE III (CONT'D)

MODEL COMPONENT: MPS NOZZLES - N_{87}

GENERAL DESCRIPTION: Flow-through MPS nozzles with gimbal capability.

There is a metric shroud around each nozzle for measuring hinge moments about

the gimbal point.

MODEL SCALE: 0.020

DRAWING NUMBER: SS-A01261

DIMENSIONS:	FULL SCALE	MODEL SCALE
MACH NO. (0.6, 0.9, 1.1, 1.25, 1.4)		
Length - In.		
Gimbal Point to Exit Plane	157.0	2.14
Throat to Exit Plane	181.55	3.6311
Diameter - In.		
Exit	90.435	1.8087
Throat	23.3502	0.467004
Inlet		
Area - ft^2		
Exit	44.607	0.01784
Throat	2.974	0.0011895
Gimbal Point (Station) - In.		
Upper Nozzle		
X_o	1445	28.90
Y_o	0	0
Z_o	443	8.86
Lower Nozzles		
X_o	1468.17	29.3634
Y_o	± 53.0	1.06
Z_o	342.64	6.8528
Null Position - Deg.		
Upper Nozzle		
Pitch	16°	16°
Yaw	0°	0°
Lower Nozzle		
Pitch	10°	10°
Yaw	OUTB'D 3°30'	OUTB'D 3°30'

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TABLE III (CONT'D)

MODEL COMPONENT: SRB NOZZLES - N_{88}

GENERAL DESCRIPTION: Flow through SRB nozzle with gimbal capability.

Simulator ϵ = 7.0 prototype. There is a metric shroud around each nozzle

for measuring hinge moments about the gimbal point.

MODEL SCALE: 0.020

DRAWING NUMBER: SS-A01262

DIMENSIONS:	FULL SCALE	MODEL SCALE
MACH NO.		
Length - In.		
Gimbal Point to Exit Plane	86.8	1.736
Throat to Exit Plane	112.135	2.2427
Diameter - In.		
Exit	144.290	2.88580
Throat	64.53	1.2906
Inlet		
Area - ft^2		
Exit	356.738	0.14269
Throat	22.712	0.090847
Gimbal Point (Station) - In.		
Upper Nozzle		
X_B	1902.6	38.052
Y_B ±	250.5	5.01
Z_B		
Lower Nozzles		
X		
Y		
Z		
Null Position - Deg.		
Upper Nozzle		
Pitch	0	0
Yaw	0	0
Lower Nozzle		
Pitch		
Yaw		

TABLE III (CONT'D)

MODEL COMPONENT: __NOZZLES - N 29__

GENERAL DESCRIPTION: __OMS nozzle in stowed position which is outboard 8° and down 7°__

__from null position. Use with M16.__

MODEL SCALE = __0.020__

DRAWING NO. __SS-A01288__

DIMENSIONS	FULL SCALE	MODEL SCALE
Mach No. _____		
Length ~ in.		
Gimbal Point to Exit Plane	56.0	1.120
Throat to Exit Plane	--	--
Diameter ~ in.		
Exit (O.D.)	50.0	1.0
Throat		
Inlet		
Area ~ ft^2.		
Exit		
Throat		
Gimbal Point (station) ~ in.		
X_0	1518.00	30.36
Y_0	88.0	1.76
Z_0	492.0	9.84
Null Position ~ deg.		
Pitch	15°49'	15°49'
Yaw	6°30'	6°30'

TABLE III (CONT'D)

MODEL COMPONENT: ELECTRICAL TUNNEL - PS$_{11}$

GENERAL DESCRIPTION: Tunnel running longitudinally on the SRB for electrical wires.

MODEL SCALE: 0.020

DRAWING NO.:   VC77-000002

DIMENSIONS:	FULL SCALE	MODEL SCALE
Width, In.	5.70	0.114
Radius, In.	5.70	0.114
Height, In.	4.70	0.094
Leading edge at Sta.	494.70	9.894
L.E. sweepback angle, degrees	30.0	30.0

TABLE III (CONT'D)

MODEL COMPONENT: CIRCUMFERENTIAL STIFFENER- PS_{12}

GENERAL DESCRIPTION: Four ring stiffeners located at the aft end of the
solid rocket boosters. The stiffener is a curved I-beam.

DRAWING NO.: VC77-000002

MODEL SCALE: 0.020

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Height, In.		2.5	0.05
Length, In.		2.0	0.04
Locations:	$X_B =$	1602.00	32.04
		1644.00	32.88
		1729.00	34.58
		1771.00	35.42

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TABLE III (CONT'D)

MODEL COMPONENT: CIRCUMFERENTIAL STIFFENER - PS_{13}

GENERAL DESCRIPTION: Ring stiffener located at the point where the skirt flares. The stiffener is I-beam.

MODEL SCALE: 0.020

DRAWING NO.: VC77-000002

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Height, In.		6.50	0.130
Length, In.		4.00	0.08
Location centerline	$X_B =$	1833.70	36.674

TABLE III (CONT'D)

MODEL COMPONENT: SOLID ROCKET BOOSTER - EXTERNAL TANK ATTACH - PS_{14}

GENERAL DESCRIPTION: Two-ring stiffeners located at aft end of solid rocket boosters.   The stiffener is curved I-beam.

MODEL SCALE: 0.020

DRAWING NO.: VC77-000002

DIMENSIONS:

	FULL SCALE	MODEL SCALE
Height, In.	8.00	0.160
Length, In.	3.00	0.060
Location centerline	X_B 1511.00	30.22

TABLE III (CONT'D)

MODEL COMPONENT: SRB PROTUBERANCE - PS$_{17}$

GENERAL DESCRIPTION: Electrical connecting box mounted on top of PS$_{14}$.

MODEL SCALE: 0.020

DRAWING NO.: NONE

DIMENSIONS:

	FULL SCALE	MODEL SCALE
Width, In.	60.0	1.20
Depth, In.	17.5	0.35

Centerline of box located 15° inboard from
vertical plane of symmetry.

TABLE III (CONT'D)

MODEL COMPONENT: SRB PROTUBERANCE - PS_{18}

GENERAL DESCRIPTION: Tie-down fixtures mounted on the aft skirt.   Total of four mounted 30° on both sides of vertical plane of symmetry.

MODEL SCALE: 0.020

DRAWING NO.: NONE

DIMENSIONS:	FULL SCALE	MODEL SCALE
Sta. of leading edge (X_B)	1861.2	37.224
Sta. of T.E. (X_B)	1925.2	38.504
Max. width, In.	14.2	0.284
Height, in.	8.3	0.166

TABLE III (CONT'D)

MODEL COMPONENT: SRB PROTUBERANCES - PS$_{19}$

GENERAL DESCRIPTION: Aft separation motor pod mounted on aft skirt at 20°

inboard from top vertical plane of symmetry.

MODEL SCALE: 0.020

DRAWING NO.: NONE

DIMENSIONS:

	FULL SCALE	MODEL SCALE
Width, In.	14.0	0.28
Height, In. (at Trailing edge)	19.0	0.38
Sweepback of leading edge, deg.	15.0	15.0

TABLE III (CONT'D)

MODEL COMPONENT: ET PROTUBERANCE - PT_{12}

GENERAL DESCRIPTION: Lightning rod attached to ET nose.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000068A

DIMENSIONS:	FULL SCALE	MODEL SCALE
Length	30.90	0.618
Diameter, In.	3.20	0.074

TABLE III (CONT'D)

MODEL COMPONENT: ELECTRICAL CONDUIT PT_{22}

GENERAL DESCRIPTION: Left-hand electrical conduit line on T_{28}.

MODEL SCALE: 0.020

DRAWING NO.:   VL78-000063, VL78-000062B

DIMENSIONS:		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	1084.333	21.687
	Y_T	- 99.591	- 1.992
	Z_T	- 139.620	- 2.792
Trailing edge at:	X_T	2058.000	41.16
	Y_T	- 99.591	- 1.992
	Z_T	- 139.620	- 2.792
Conduit size:		2.0 x 6.0	0.04 x 0.12

Centerline of line located radially at $\phi = 35.5°$

TABLE III (CONT'D)

MODEL COMPONENT: LO_2 RECIRCULATION LINE - PT_{23}

GENERAL DESCRIPTION: LO_2 recirculation line on right-hand upper side of T_{28}.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, VL78-000062B, Martin Marietta 82600207000

DIMENSIONS:		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	1040.667	20.813
	Y_T	94.169	1.883
	Z_T	540.934	10.819
Trailing edge at:	X_T	2062.920	41.258
	Y_T	70.000	1.400
	Z_T	573.934	11.479
Diameter of Line		4.0	0.08

Centerline of lines located radially at $\phi = 33°45'$.

(Right of TDC looking forward).

TABLE III (CONT'D)

MODEL COMPONENT: LH$_2$ PRESSURE   LINE - PT$_{24}$

GENERAL DESCRIPTION: LH$_2$ pressure   line on T$_{28}$.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, VL78-000062B, Martin Marietta 82600207000

DIMENSIONS:		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	1040.667	20.813
	Y_T	- 94.169	- 1.884
	Z_T	540.934	10.819
Trailing edge at:	X_T	2062.920	41.258
	Y_T	- 70.00	-1.40
	Z_T	573.934	11.479
Diameter of line		4.0	0.080

Centerline of line located radially at $\phi = 33°45'$

(Left of TDL looking forward)

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TABLE III (CONT'D)

MODEL COMPONENT: ELECTRICAL CONDUIT PT_{25}

GENERAL DESCRIPTION: Right-hand aft electrical conduit line on T_{28} with

LH_2 pressure sensor line and LO_2 vent valve actuator line.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, VL78-000062B, Martin Marietta 82600207000

DIMENSIONS:		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	1084.333	21.687
	Y_T	99.591	1.992
	Z_T	139.620	2.792
Trailing edge at:	X_T	2058.00	41.160
	Y_T	99.591	1.992
	Z_T	139.620	2.792
Conduit size		2.0 x 6.0	0.4 x 0.12

Centerline of line located radially at $\phi = 35.5°$

TABLE III (CONT'D)

MODEL COMPONENT: LO_2 PRESSURE LINE - PT_{26}

GENERAL DESCRIPTION: LO_2 pressure line on the T_{28}.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, VL78-000062B, Martin Marietta 82600207000

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	360.733	7.215
	Y_T	15.145	0.3029
	Z_T	407.718	8.154
Trailing edge at:	X_T	2063.5	41.670
	Y_T	63.25	1.265
	Z_T	609.00	12.180

Centerline of line located radially at $\phi = 27°$

Line diameter	2.0	0.040

TABLE III (CONT'D)

MODEL COMPONENT: ELECTRICAL CONDUIT PT_{27}

GENERAL DESCRIPTION: Electrical conduit on the right-hand forward section of T_{28}.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000062B

DIMENSIONS:		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	360.733	7.215
	Y_T	11.549	0.2310
	Z_T	412.474	8.249
Trailing edge at:	X_T	876.273	17.525
	Y_T	226.114	4.522
	Z_T	646.774	12.935

Centerline of conduit located radiatlly at $\phi = 47.5°$

Conduit size   2.0 x 6.0   0.04 x 0.12

TABLE III (CONT'D)

MODEL COMPONENT : ___RUDDER - R5_____

GENERAL DESCRIPTION : ___Configuration 140C rudder._____

_____

_____

MODEL SCALE: 0.020_____

DRAWING NUMBER ___VL70-000146B_____

DIMENSIONS	FULL SCALE	MODEL SCALE
Area - Ft^2	100.15	0.04006
Span (equivalent) , In.	201.00	4.02
Inb'd equivalent chord , In.	91.585	1.832
Outb'd equivalent chord , In.	50.833	1.017
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.400	0.400
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge	34.83	34.83
Trailing Edge	26.25	26.25
Hingeline	34.83	34.83
Area Moment (Normal to hinge line), Ft^3 (Product of area & $\bar{c}$)	610.92	0.00489
Mean Aerodynamic Chord, In .	73.2	1.464

TABLE III (CONT'D)

MODEL COMPONENT : SOLID ROCKET BOOSTER - S_{22}

GENERAL DESCRIPTION : SOLID ROCKET BOOSTER - S_{22}

MODEL SCALE: 0.020

DRAWING NUMBER : VL77-000002, VC70-000002

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length, In.	1789.6	35.792
Max Width (Body dia), In.	146.0	2.92
Max Depth (aft shroud dia.,)	208.2	4.164
Fineness Ratio	8.596	8.596
Area - Ft^2		
Max. Cross-Sectional	236.423	0.094569
Planform		
Wetted		
Base		
W.P. of SRB Centerline (Z_T)	400.00	8.0
F.S. of SRB Centerline (X_T)	743.0	14.86
B.P. of SRB Centerline (Y_T)	250.5	5.01

TABLE III (CONT'D)

MODEL COMPONENT: EXTERNAL TANK - T_{28}

GENERAL DESCRIPTION: _____

_____

_____

_____

DRAWING NUMBER   VC70-000002, VC78-000002

DIMENSION:	FULL SCALE	MODEL SCALE
Length , In.	1844.275	36.8855
Max Width, Dia., In.	331.00	6.620
Max Depth		
Fineness Ratio	5.687	5.687
Area		
Max Cross-Sectional	594.678	0.23787
Planform		
Wetted		
Base		

TABLE III (CONT'D)

MODEL COMPONENT: VERTICAL - V$_8$

GENERAL DESCRIPTION: Configuration 140C vertical tail.

MODEL SCALE: 0.020

DRAWING NUMBER: VL70-000146B W/O Dragchute

DIMENSIONS:	FULL SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo) - Ft^2	413.253	0.2053
Planform		
Span (Theo) - In.	315.72	7.3144
Aspect Ratio	1.675	1.675
Rate of Taper	0.507	0.507
Taper Ratio	0.404	0.404
Sweep-Back Angles, Degrees.		
Leading Edge	45.000	45.000
Trailing Edge	26.25	26.25
0.25 Element Line	41.13	41.13
Chords:		
Root (Theo) WP	268.50	5.370
Tip (Theo) WP	108.47	2.1694
MAC	199.81	3.9962
Fus. Sta. of .25 MAC	1463.35	29.2670
W.P. of .25 MAC	635.52	12.710
B.L. of .25 MAC	0.0	0.0
Airfoil Section		
Leading Wedge Angle - Deg.	10.0	10.0
Trailing Wedge Angle - Deg.	14.92	14.92
Leading Edge Radius	2.0	0.04
Void Area - Ft^2	13.17	0.005268
Blanketed Area	0.0	0.0

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TABLE III (CONL'D)

MODEL COMPONENT: WING-W$_{127}$

GENERAL DESCRIPTION: Configuration 140C orbiter wing, MCR 200-R4; similar to 140A/B

wing W$_{116}$ but with refinements. Improved wing-boot-midbody fairing (X$_o$ =940 to
X$_o$ = 1540); elevon split line relocated from Y$_o$ = 281 to Y$_o$ = 312.5.

MODEL SCALE: 0.020

TEST NO.   DWG. NO. VL70-0001400, -000200B

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo.) Ft^2		
Planform	2690.00	1.076
Span (Theo In.	936.68	18.733
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	0.500	0.500
Aerodynamic Twist, degrees	3.000	3.000
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	- 10.056	- 10.056
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.O.O.	689.24	13.785
Tip, (Theo) B.P.	137.85	2.757
MAC	474.81	9.496
Fus. Sta. of .25 MAC	1136.83	22.737
W.P. of .25 MAC	290.58	5.812
B.L. of .25 MAC	182.13	3.643
EXPOSED DATA		
Area (Theo) Ft^2	1751.50	0.7006
Span, (Theo) In. BP108	720.68	14.414
Aspect Ratio	2.059	2.059
Taper Ratio	0.245	0.245
Chords		
Root BP108	562.09	11.242
Tip 1.00 $\frac{b}{2}$	137.85	2.757
MAC	392.83	7.857
Fus. Sta. of .25 MAC	1185.08	23.722
W.P. of .25 MAC	294.30	5.886
B.L. of .25 MAC	251.77	5.035
Airfoil Section (Rockwell Mod NASA)		
XXXX-64		
Root $\frac{b}{2}$ =	0.113	0.113
Tip $\frac{b}{2}$ =	0.120	0.120
Data for (1) of (2) Sides		
Leading Edge Cuff		
Planform Area Ft^2	113.18	0.0453
Leading Edge Intersects Fus M. L. @ Sta	500.00	10.00
Leading Edge Intersects Wing @ Sta	1024.00	20.480

Table IV Orbiter Fuselage Pressure Tap Numbers and Locations

ORBITER X_o IN.			RADIAL LOCATION ~ ϕ, DEGREES										
FULL SCALE	MODEL SCALE	X_o/ℓ_B	0	320	290	270	255	240	225	210	195	180	NO OF TAPS
880	17.60	0.500			303	302				301			3
1080	21.60	0.653		312	311	310	309	308	307	306	305	304	8
1180	23.60	0.730		321	320	319	318	317	316	315	314	313	8
1245	24.90	0.781		330	329	328	327	326	325	324	323	322	10
1300	26.00	0.823		339	338	337	336	335	334	333	332	331	10
1375	27.50	0.882	348	347	346	345	344	343	342	341	340		9
1430	28.60	0.923	357	356	355	354	353	352	351	350	349		9
1480	29.60	0.963	366	365	364	363	362	361	360	359	358		9
1530	30.60	1.002	LOCATION OFF OMS POD				368	367	LOCATION OFF OMS POD)				2
													68

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Vertical $W_L \sim Z_o$			$X/C_v \sim$ LOCAL CHORD								NO. TAPS
FULL SCALE	MODEL SCALE	η_v	0	0.025	0.050	0.150	0.300	0.520	0.750	0.900	
550	11.0	0.158	401	402	403	404	405	406	407	--	7
600	12.0	0.316	408	409	410	411	412	413	414	415	8
690	13.8	0.600	416	417	418	419	420	421	422	423	8
765	15.3	0.840	424	425	426	427	428	429	430	431	8
792	15.84	0.925	432	433	434	435	436	4377	438	439	8

TOTAL VERTICAL TAPS 39

RIGHT SIDE

BODY FLAP

ORBITER $\sim X_o$			$\phi \sim$ DEGREES		NO. TAPS
FULL SCALE	MODEL SCALE	SURFACE	0	320	
1555	31.1	UPPER	382	383	2
1555	31.1	LOWER	386	387	2
1590	31.8	UPPER	384	385	2
1590	31.8	LOWER	388	389	2

TOTAL BODY FLAP 8

NOTE: Base Pressure Tap Locations TBD.

OMS PODS VERTICAL & ORBITER BASE

$\left(13 \begin{array}{c} \text{TAPS} \\ \text{TOTAL} \end{array} \right)$
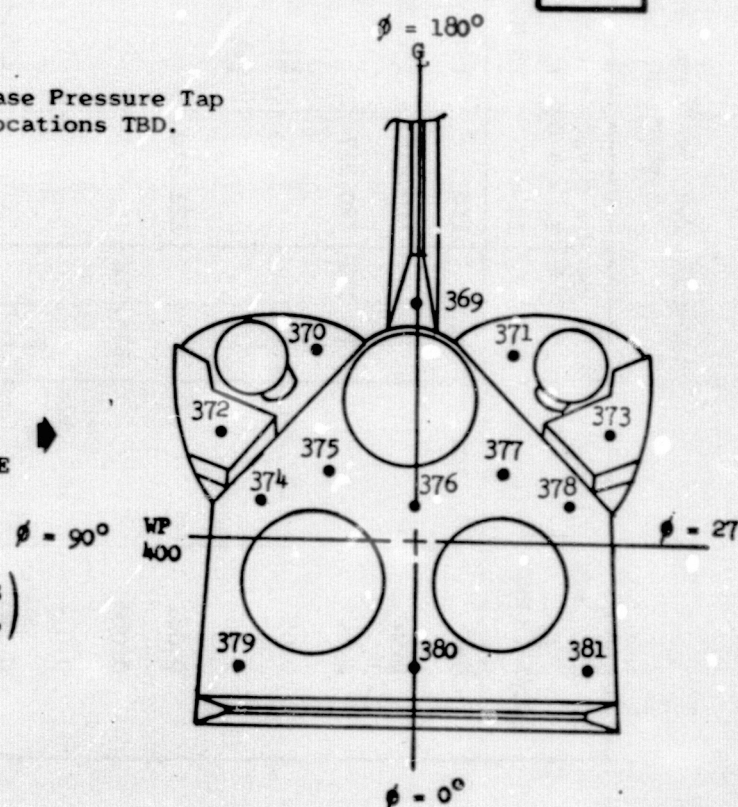
Table V Orbiter Base, Vertical Tail and Body Flap
Pressure Tap Numbers and Locations

Table VI Orbiter Right Wing Pressure Tap
Numbers and Locations

RIGHT WING X/C LOCAL CHORD	$\eta = 0.299$ $Y_o = 2.8$ in M.S.	$\eta = 0.364$ $Y_o = 3.4$ IN M.S.	$\eta = 0.427$ $Y_o = 4.0$ IN M.S.	$\eta = 0.534$ $Y_o = 5.0$ IN M.S.	$\eta = 0.641$ $Y_o = 6.0$ IN M.S.	$\eta = 0.780$ $Y_o = 7.30$ IN M.S.	$\eta = 0.887$ $Y_o = 8.3$ IN M.S.
0*	101	112	118	131	144	155	164
0.02			119,216	132,228	145,240	156,250	165,258
0.04		113,211	120,217				
0.05	102,201			133,229	146,241	157,251	166,259
0.08				134,230			
0.081			121.218				
0.086		114,212					
0.094	103,202						
0.150				135,231	147,242	158,252	167,260
0.163		115,213					
0.177			122,219				
0.229	104,203						
0.246		116,214					
0.250				136,232	148,243	159,253	168,261
0.274			123,220				
0.362	105,204						
0.390		117,215					
0.400				137,233	149,244		169,262
0.402			124,221				
0.497	106,205						

* TAPS AT X/C = 0 ARE LOCATED ON WING LEADING EDGE

NOTE: 100 SERIES NUMBERS LOCATED ON TOP OF WING.

200 SERIES NUMBERS LOCATED ON BOTTOM OF WING.

Table VI (Continued)

RIGHT WING X/C	$\eta = .299$ $Y_0 = 2.8$ IN M.S.	$\eta = 0.364$ $Y_0 = 3.4$ IN M.S.	$\eta = 0.427$ $Y_0 = 4.0$ IN M.S.	$\eta = 0.534$ $Y_0 = 5.0$ IN M.S.	$\eta = 0.641$ $Y_0 = 6.0$ IN M.S.	$\eta = 0.780$ $Y_0 = 7.30$ IN M.S.	$\eta = 0.887$ $Y_0 = 8.3$ IN M.S.
0.55				138,234	150,245		
0.565			125,222				
0.60							170,263
0.65						160,254	
0.70	107,206				151,246		
0.725				139,235			
0.75						161,255	171,264
0.760			126,223				
0.775				140,236	152,247		
0.808			127,224				
0.834	108,207						
0.85				141,237	153,248	162,256	
0.857			128,225				
0.865	109,208						
0.90	110,209			142,238			172,265
0.905			129,226		154,249		
0.95				143,239		163,257	
0.953			130,227				
0.965	111,210						

NOTE: 100 SERIES NUMBERS LOCATED ON TOP OF WING

200 SERIES NUMBERS LOCATED ON BOTTOM OF WING

TOTAL NUMBER OF TAPS = 137

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Table VII External Tank Pressure Tap Numbers and Locations

| ET STATION ~ x_T | | | ϕ ~ DEGREES | | | | | | | | | | | | | | | |
FULL SCALE	MODEL SCALE	x_T/ℓ_T	0	30	60	90	120	135	150	165	180	195	210	225	240	270	300	330
1500	30.0	0.634				502										501		
1700	34.0	0.742		504	505	506	507	508	509	510						503		
1900	38.0	0.851	518	519	520	521	522	523	524	525		511	512	513	514	515	516	517
2040	40.8	0.986	533	534	535	536	537	538	539	540		526	527	528	529	530	531	532
TANK BASE @ ℄											541							
TANK BASE @ 1/3 RAD			550	551	552	553	554	555	556	557	542	543	544	545	546	547	548	549
TANK BASE @ 2/3 RAD			566	567	568	569	570	571	572	573	558	559	560	561	562	563	564	565

TOTAL NO. TAPS= 73

ϕ = 180°

ϕ = 90° ϕ = 270°

ϕ = 0°
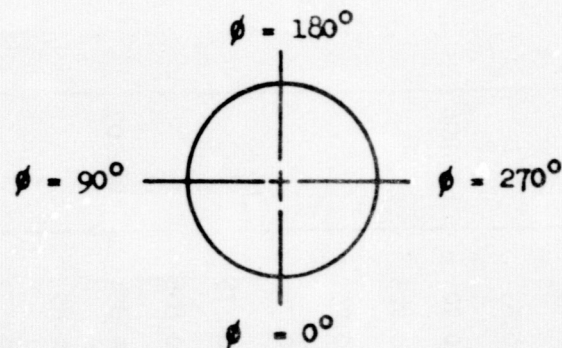
VIEW LOOKIG VIEW LOOKING FORWARD

70

Table VIII SRB Pressure Tap Numbers and Locations

SRB STATION ~ X_B			ϕ ~ DEGREES				NO. TAPS
FULL SCALE	MODEL SCALE	X_B/ℓ_B	0	90	180	270	
1450	29.0	0.700	603	604	601	602	4
1650	33.0	0.811	607	608	605	606	4
1850	37.0	0.923	611	612	609	610	4
1890	37.8	0.945	615	616	613	614	4
1930	38.6	0.968	619	620	617	618	4
		SKIRT BASE	623	624	621	622	4
			TOTAL NO. SRB TAPS				24

ℓ = 1789.6 infs = 35.792 inms
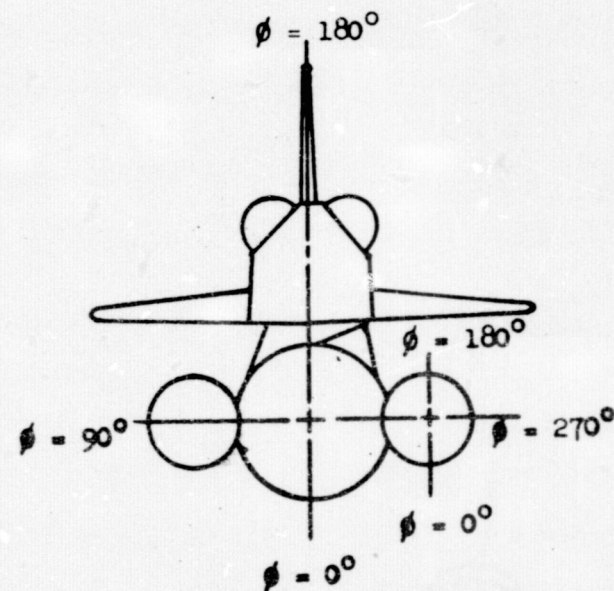
ET & SRB RADIAL LOCATIONS

71

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows

2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

72
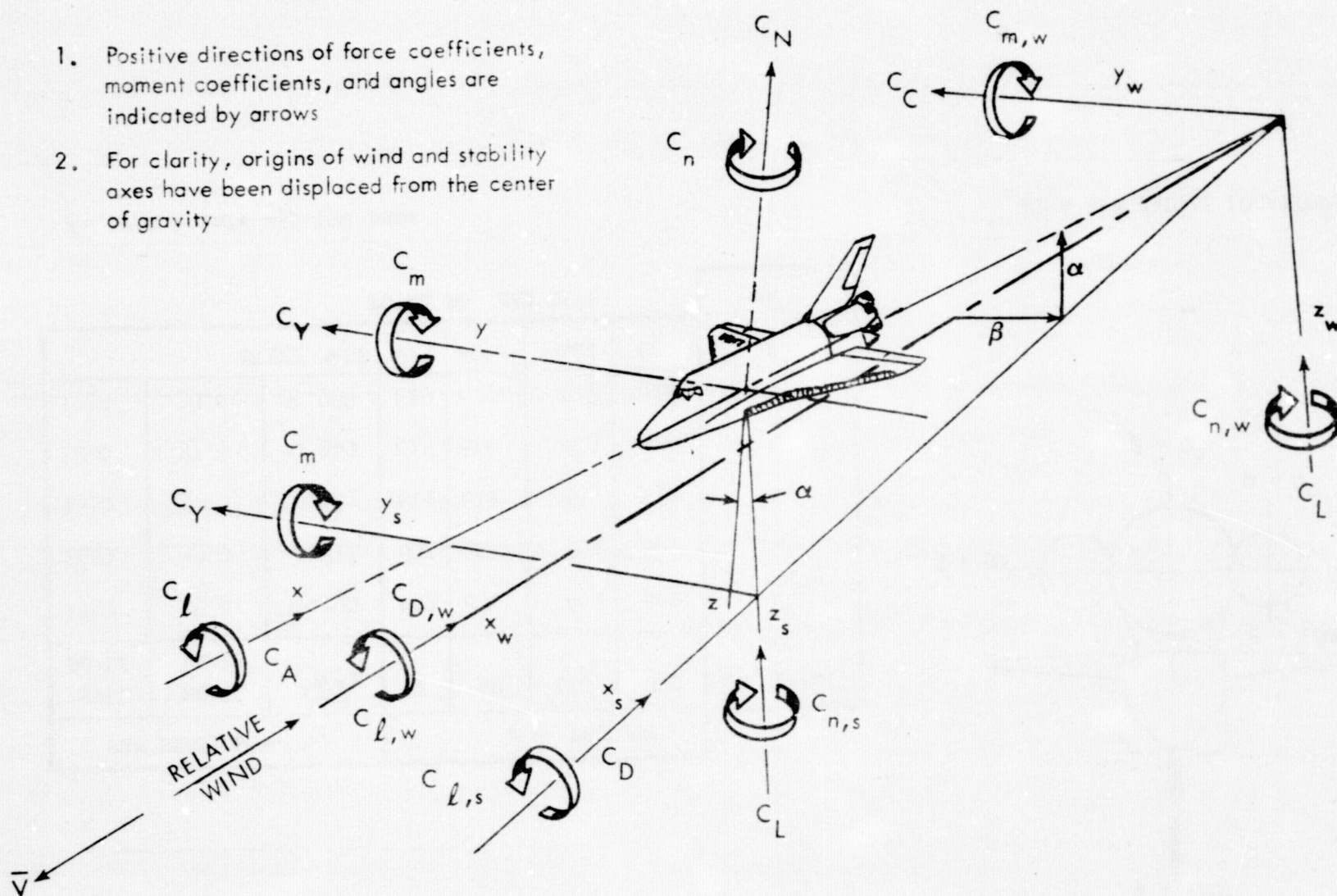
Figure 1. - Axis systems.
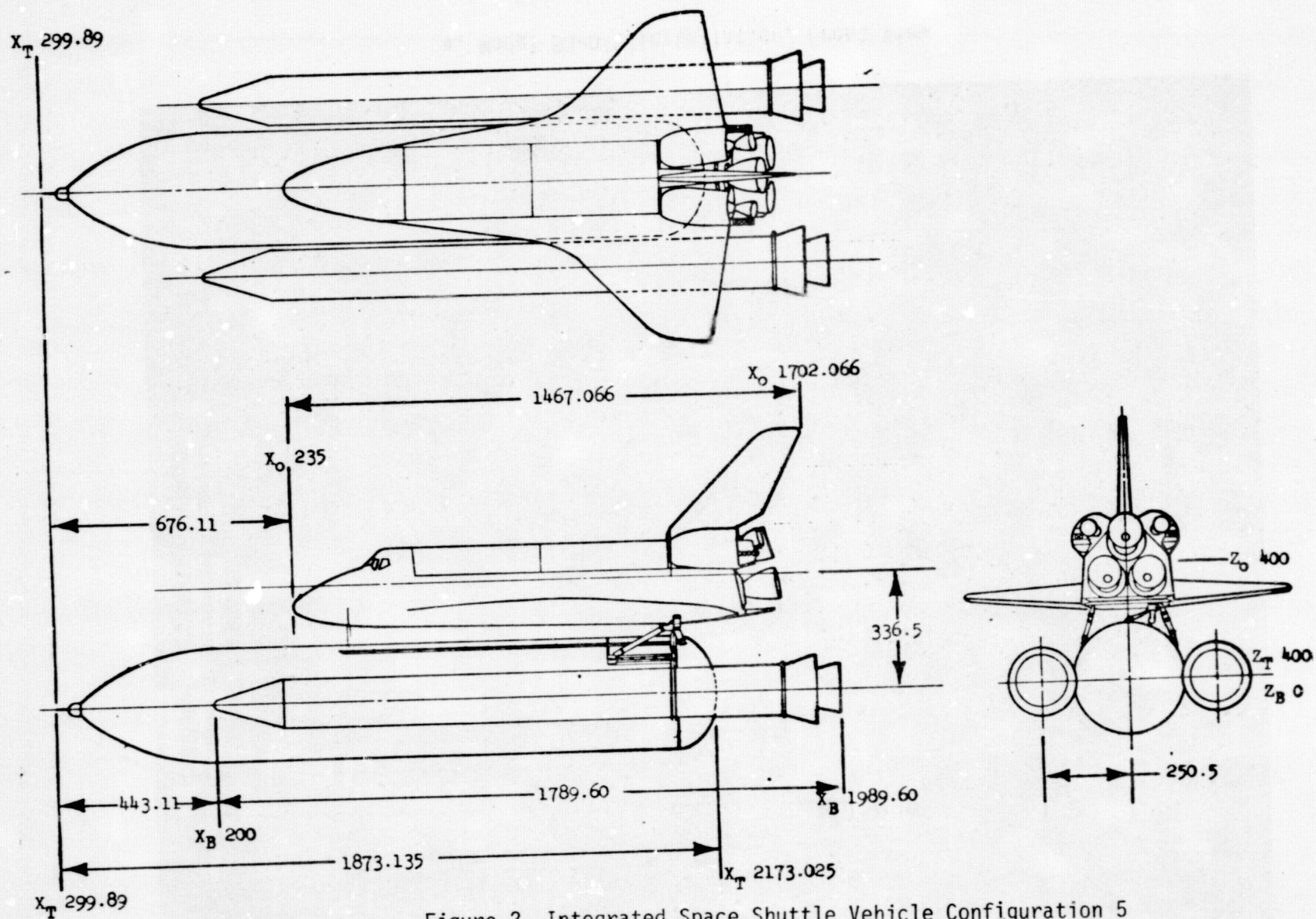
Figure 2. Integrated Space Shuttle Vehicle Configuration 5
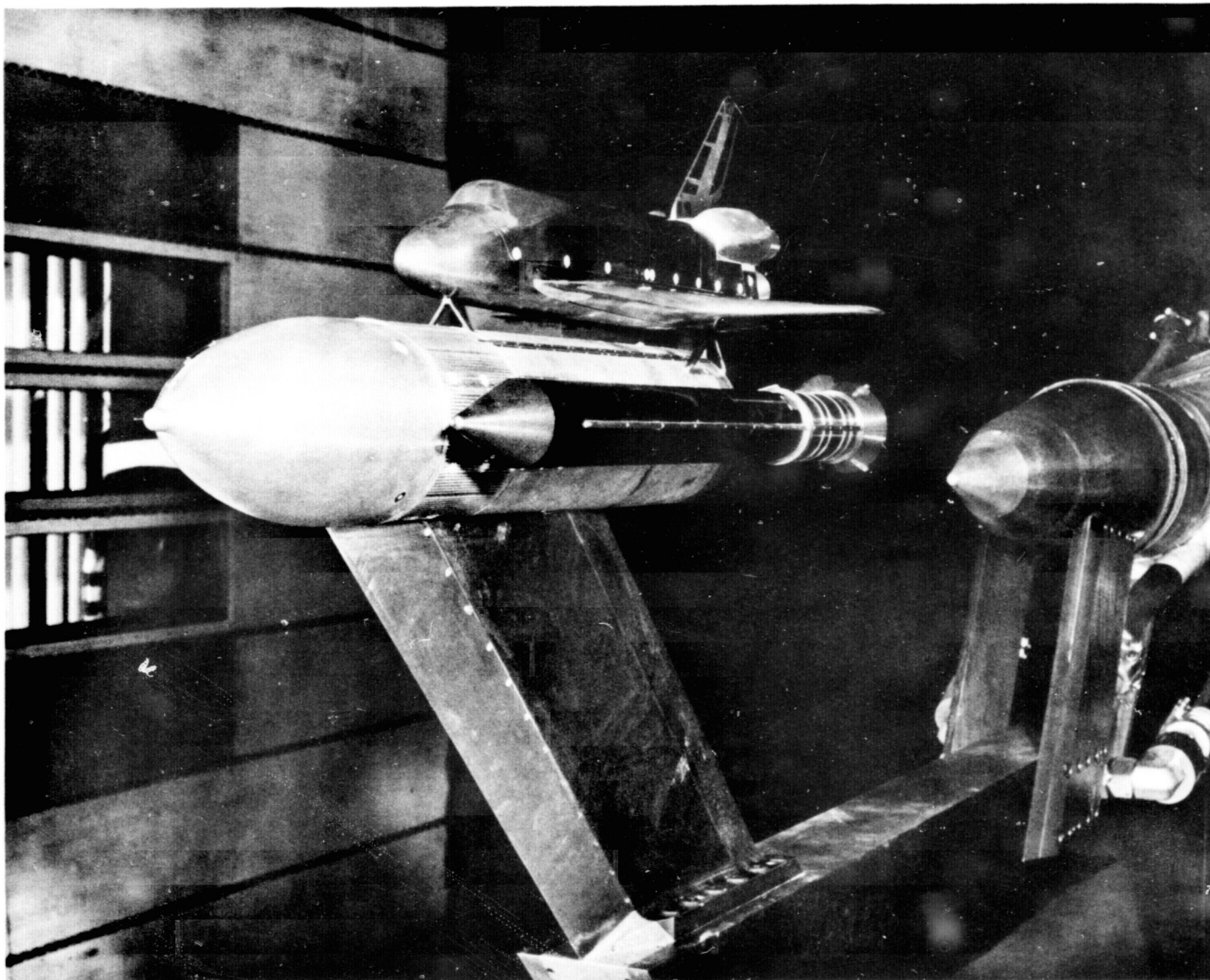
a. Model 88-OTS Installation, Front View

Figure 3. - Model photographs.
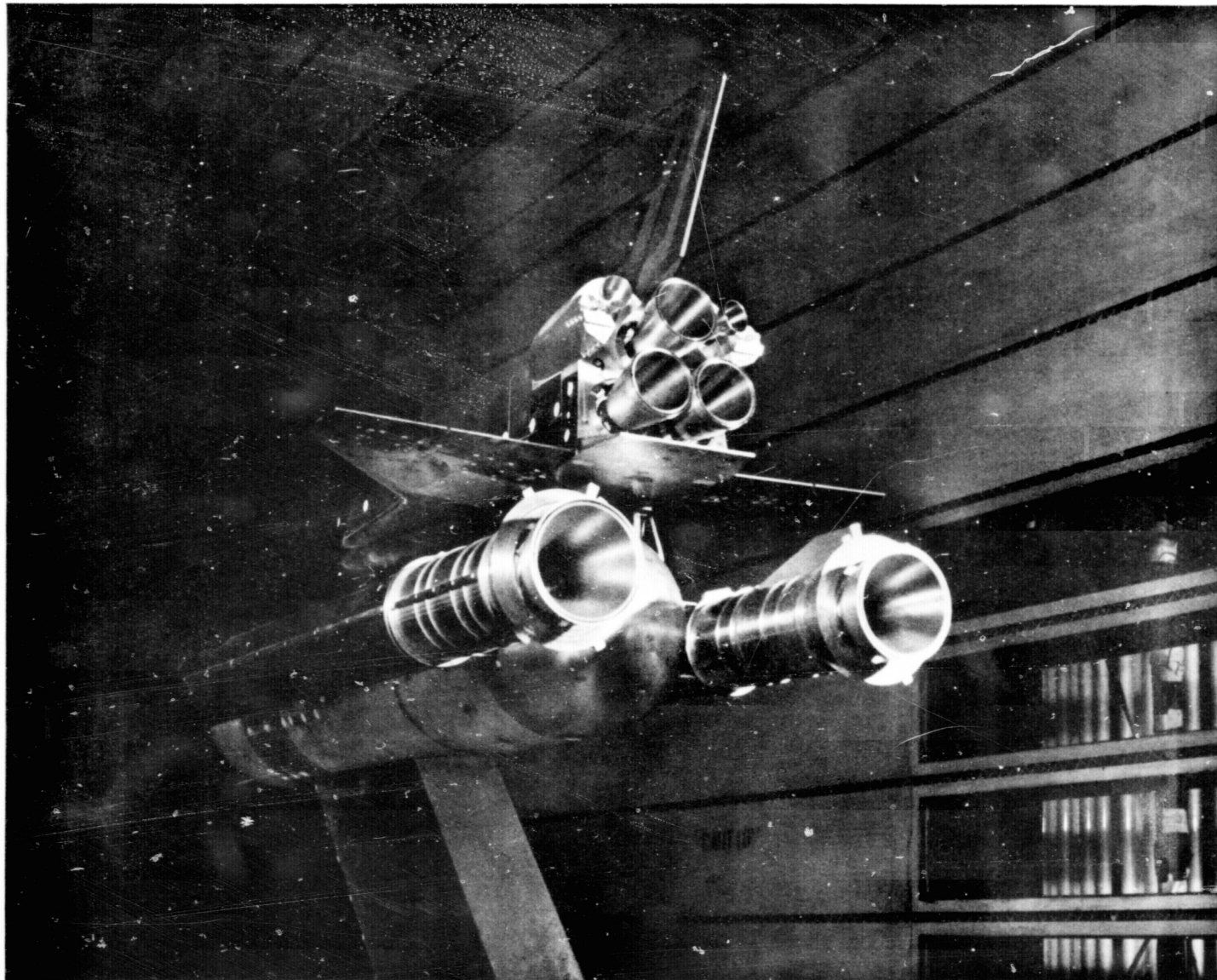
b. Model 88-OTS Installation, Rear View

Figure 3. - Concluded.

APPENDIX

TABULATED SOURCE PRESSURE DATA

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Tabulations of plotted data are available
on request from Data Management Services.

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV01)   (19 OCT 74)

REFERENCE DATA

						PARAMETRIC DATA			

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5238	.3832	.4310	.4816	.4316
.025	-.0629	-.1626	-.3991	-.4486	-.5101
.050	.1310	-.2166	-.3491	-.3470	-.4292
.150	-.0254	-.1248	-.1544	-.1622	-.1753
.300	-.1668	-.1717	-.1830	-.2116	-.2345
.520	-.2887	-.3019	-.3280	-.2838	-.3759
.750	-.2948	-.3881	-.4714	-.3269	-.2419
.900		-.2745	-.3432	-.2942	-.1745

ALPHA (2) = -.216 BETA (1) = -4.006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3881	.3165	.3188	.2658	.2356
.025	-.4597	-.5056	-.8977	-.9821	-1.1112
.050	-.4940	-.7263	-.8926	-.9762	-1.0860
.150	-.2609	-.6448	-.8800	-.8535	-1.0647
.300	-.3678	-.4528	-.7565	-.7558	-.8629
.520	-.5202	-.4284	-.5998	-.6052	-.4241
.750	-.3151	-.3474	-.4429	-.3017	-.2244
.900		-.3165	-.2699	-.2483	-.1501

ALPHA (2) = -.336 BETA (2) =   .006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4827	.3336	.3504	.4269	.3847
.025	-.1336	-.2233	-.4207	-.4295	-.4871
.050	.0700	-.2887	-.3701	-.3219	-.3971
.150	-.0843	-.1885	-.1753	-.1596	-.1836
.300	-.2295	-.2412	-.1745	-.2213	-.2487
.520	-.3180	-.3154	-.3193	-.2933	-.3916
.750	-.2668	-.3366	-.4634	-.3125	-.2180
.900		-.2680	-.2552	-.2641	-.1448

ALPHA (2) = -.222 BETA (3) = 4.025

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3808	.2180	.1408	.2023	.1565
.025	.2806	.1762	.1110	.1320	.1227
.050	.2693	.1542	.1244	.1152	.0509
.150	.1201	.0787	.0610	.0500	-.0337
.300	-.0148	-.0193	-.0327	-.0793	-.1628
.520	-.1719	-.2092	-.2392	-.2147	-.3845
.750	-.2717	-.2801	-.4891	-.6959	-.6247
.900		-.2352	-.2559	-.4223	-.3172

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV01)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.948 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4619	.2699	.2877	.3618	.3121
.025	-.2023	-.2802	-.3809	-.4038	-.4546
.050	.0004	-.3368	-.3271	-.2960	-.3671
.150	-.1353	-.2474	-.1583	-.1591	-.1913
.300	-.2858	-.3117	-.1733	-.2301	-.2575
.520	-.3493	-.2719	-.3258	-.3028	-.4086
.750	-.2355	-.2711	-.4269	-.2967	-.1966
.900		-.2411	-.2251	-.2409	-.1162

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV02)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-CB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.176 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7273	.5969	.5712	.5903	.5672
.025	.1892	.0443	-.1508	-.1852	-.2284
.050	.3604	.0326	-.1166	-.1130	-.1590
.150	.2407	.1291	.0682	.0699	.0251
.300	.1053	.0490	.0440	.0094	-.0146
.520	-.0540	-.0598	-.0710	-.0509	-.1332
.750	-.3809	-.6750	-.6816	-.6989	-.7075
.900		-.4161	-.6664	-.6892	-.6477

ALPHA (2) = -.294 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5905	.5140	.4737	.4195	.4075
.025	-.1526	-.2731	-.5648	-.6964	-.8691
.050	-.1840	-.3853	-.5636	-.6880	-.8299
.150	-.0541	-.3562	-.5547	-.5727	-.7107
.300	-.0746	-.2066	-.4349	-.4925	-.4816
.520	-.2591	-.2678	-.3645	-.4622	-.3911
.750	-.4518	-.7055	-.7217	-.7378	-.7864
.900		-.4945	-.7431	-.7153	-.7134

ALPHA (2) = -.252 BETA (2) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6968	.5593	.5031	.5175	.4999
.025	.1064	.0102	-.1626	-.2059	-.2346
.050	.3131	-.0005	-.1334	-.1346	-.1632
.150	.2064	.0956	.0311	.0378	-.0064
.300	.0778	.0187	.0083	-.0164	-.0436
.520	-.0799	-.0934	-.1008	-.0795	-.1611
.750	-.3841	-.6804	-.6867	-.7027	-.7177
.900		-.4214	-.6683	-.6925	-.6656

ALPHA (2) = -.225 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5888	.4272	.3321	.3630	.3464
.025	.5037	.3793	.2642	.2600	.2776
.050	.4942	.3578	.2836	.2595	.2142
.150	.3529	.2752	.2257	.2127	.1415
.300	.2066	.1687	.1457	.1149	.0380
.520	.0394	.0045	-.0118	.0056	-.1414
.750	-.4101	-.6090	-.6358	-.6750	-.7217
.900		-.4260	-.5921	-.5469	-.7033

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV02)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 4.026 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6725	.4896	.4079	.4159	.4067
.025	.0647	-.0271	-.2176	-.2419	-.2583
.050	.2559	-.0778	-.1922	-.1742	-.1896
.150	.1461	.0307	-.0392	-.0185	-.0575
.300	.0078	-.0522	-.0569	-.0664	-.0944
.520	-.1474	-.1515	-.1479	-.1249	-.2047
.750	-.4012	-.6997	-.7013	-.7166	-.7370
.900		-.4363	-.6662	-.7060	-.6936

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV03)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.182 BETA (1) =   .003

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7716	.6546	.6095	.6187	.6166
.025	.2155	.0686	-.0634	-.1044	-.1162
.050	.3742	.1134	-.0480	-.0484	-.0536
.150	.3249	.1983	.1197	.1390	.1077
.300	.1852	.1187	.0980	.0989	.0630
.520	.0164	.0144	.0259	.0550	-.0096
.750	-.3265	-.5098	-.4968	-.5142	-.5184
.900		-.3456	-.4890	-.5031	-.4784

ALPHA (2) = -.291 BETA (1) = -3.997

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6314	.5681	.5365	.4835	.4830
.025	-.1029	-.2419	-.4267	-.6662	-.6751
.050	-.1228	-.2553	-.4282	-.6216	-.6613
.150	-.1112	-.2336	-.3994	-.4978	-.5971
.300	.0597	-.1339	-.3079	-.3211	-.4473
.520	-.1399	-.1642	-.2533	-.2732	-.2228
.750	-.3829	-.5720	-.5475	-.5769	-.5781
.900		-.4085	-.5688	-.5506	-.5602

ALPHA (2) = -.177 BETA (2) =   .016

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7018	.5969	.5330	.5410	.5368
.025	.1119	.0181	-.1075	-.1490	-.1578
.050	.2829	.0466	-.0923	-.0901	-.1069
.150	.2628	.1522	.0696	.0894	.0615
.300	.1408	.0696	.0447	.0496	.0322
.520	-.0249	-.0323	-.0216	.0085	-.0501
.750	-.3413	-.5285	-.5125	-.5184	-.5385
.900		-.3680	-.5073	-.5172	-.5068

ALPHA (2) = -.366 BETA (3) = 4.031

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6316	.4892	.4186	.4383	.4375
.025	.5144	.4185	.2951	.3143	.3462
.050	.5188	.4033	.3321	.3193	.3016
.150	.4025	.3198	.2816	.2866	.2355
.300	.2658	.2149	.2193	.2139	.1476
.520	.1014	.0918	.0943	.1225	-.0072
.750	-.3471	-.4581	-.4578	-.4829	-.5262
.900		-.3591	-.4292	-.4696	-.5198

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV03)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.843 BETA (1) =   .003

Z/BV X/CV	.158	.316	.800	.840	.925
.000	.7026	.5315	.4506	.4487	.4521
.025	.0298	-.0326	-.1426	-.1780	-.1837
.050	.2665	-.0253	-.1327	-.1311	-.1333
.150	.2031	.0905	.0189	.0392	.0151
.300	.0805	.0160	.0004	.0006	-.0131
.520	-.0749	-.0780	-.0699	-.0340	-.0893
.750	-.3541	-.5502	-.5292	-.5319	-.5535
.900		-.3813	-.5240	-.5272	-.5286

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUVD4)   (19 OCT 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-CB =   4.000
RUDDER =   .000   MACH   =   1.400
GIMBAL =   1.000

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .009

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7816	.7269	.6589	.6808	.6626
.025	.2252	.2509	.0149	-.0373	-.0534
.050	.3147	.1669	.0328	.0090	.0131
.150	.3840	.2559	.1975	.1994	.1712
.300	.2477	.1886	.1632	.1734	.1550
.520	.0853	.0848	.0985	.1322	.0855
.750	-.3093	-.3647	-.3428	-.3425	-.3621
.900		-.3703	-.3426	-.3467	-.3410

ALPHA (2) = -.204 BETA (1) = -4.000

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6778	.6120	.5866	.5503	.5469
.025	-.1129	-.0311	-.3258	-.4967	-.4864
.050	-.1203	-.1392	-.3269	-.4685	-.5200
.150	-.0950	-.1470	-.2732	-.4025	-.4174
.300	.1654	-.0793	-.1830	-.2496	-.3312
.520	-.0410	-.0767	-.1552	-.2921	-.1350
.750	-.3525	-.4199	-.4154	-.4367	-.4156
.900		-.4336	-.4255	-.4171	+.4171

ALPHA (2) = -.306 BETA (2) =   .016

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7052	.6545	.5850	.5868	.5905
.025	.1007	.1593	-.0232	-.0672	-.0822
.050	.1826	.0970	-.0089	-.0105	-.0240
.150	.3240	.2165	.1466	.1570	.1347
.300	.2041	.1442	.1158	.1226	.1102
.520	.0524	.0444	.0511	.0888	.0440
.750	-.3194	-.3820	-.3631	-.3624	-.3833
.900		-.3915	-.3616	-.3644	-.3657

ALPHA (2) = -.267 BETA (3) = 4.031

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6733	.5346	.4886	.5102	.5152
.025	.5199	.4667	.3489	.3610	.3992
.050	.5354	.4401	.3850	.3746	.3736
.150	.4366	.3676	.3305	.3478	.3106
.300	.3089	.2613	.2765	.2893	.2375
.520	.1537	.1561	.1831	.2210	.1099
.750	-.3234	-.3274	-.3095	-.3221	-.3621
.900		-.3220	-.2968	-.3164	-.3627

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV04)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALFHA (3) = 4.392 BETA (1) =   .012

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6805	.5678	.4958	.4807	.4852
.025	-.0212	.0401	-.0697	-.1110	-.1154
.050	.2038	.0248	-.0503	-.0573	-.0609
.150	.2223	.1504	.0883	.1026	.0968
.300	.1334	.0760	.0575	.0627	.0544
.520	-.0073	-.0157	-.0003	.0366	-.0063
.750	-.3126	-.4180	-.3896	-.3837	-.4057
.900		-.3999	-.3894	-.3829	-.3981

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV05)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -.119 BETA (1) = -.006

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.5258	.3831	.4242	.4586	.4075
.025	-.0654	-.2351	-.4203	-.4885	-.5613
.050	.1318	-.2186	-.3823	-.4063	-.4707
.150	-.0270	-.1302	-.1815	-.1984	-.2155
.300	-.1729	-.1943	-.2148	-.2675	-.2784
.520	-.3111	-.3490	-.3579	-.3264	-.4261
.750	-.5085	-.6230	-1.1146	-.6032	-.4615
.900		-.5182	-.5821	-.5560	-.4083

ALPHA (2) = -.306 BETA (1) = -4.000

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.3897	.3203	.3218	.2675	.2433
.025	-.4445	-.6117	-.8908	-1.0225	-1.2610
.050	-.4911	-.7133	-.8851	-1.0180	-1.2463
.150	-.2413	-.6138	-.8716	-.8767	-.9816
.300	-.3627	-.4559	-.7396	-.7994	-.7807
.520	-.5330	-.5235	-.6271	-.7774	-.6797
.750	-.5514	-.6748	-1.1072	-.6316	-.5357
.900		-.6079	-.6695	-.4853	-.4285

ALPHA (2) = -.264 BETA (2) = .016

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.4817	.3117	.3309	.3787	.3536
.025	-.1374	-.3047	-.4726	-.5160	-.5695
.050	.0632	-.2904	-.4253	-.4410	-.4933
.150	-.0876	-.2016	-.2333	-.2264	-.2477
.300	-.2391	-.2694	-.2573	-.2958	-.3042
.520	-.3786	-.3837	-.3993	-.3526	-.4474
.750	-.5084	-.5248	-1.1103	-.5666	-.3935
.900		-.5303	-.5489	-.5114	-.3477

ALPHA (2) = -.348 BETA (3) = 4.028

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.3612	.1959	.1411	.1927	.1451
.025	.2498	.1277	.0797	.0803	.0542
.050	.2388	.1083	.0945	.0572	-.0208
.150	.0854	.0291	.0290	-.0003	-.0957
.300	-.0609	-.0475	-.0730	-.1337	-.2268
.520	-.2423	-.2473	-.2854	-.2739	-.4561
.750	-.5210	-.5823	-1.0554	-1.0631	-.7250
.900		-.4515	-.5249	-.5758	-.5598

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV05)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.924 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4562	.2756	.2122	.2923	.2976
.025	-.1958	-.3473	-.5250	-.4994	-.5207
.050	-.0277	-.2306	-.4755	-.4059	-.4354
.150	-.1188	-.2385	-.2971	-.2182	-.2413
.300	-.2545	-.3347	-.3015	-.2896	-.2919
.520	-.4100	-.4324	-.4317	-.3483	-.4401
.750	-.4551	-.6064	-.7199	-.4569	-.3411
.900		-.5372	-.4540	-.4162	-.2726

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV06)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.074 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .7229   .5898   .5687   .5869   .5645
                                            .025   .1814   .0076 -.1517 -.1889 -.2326
                                            .050   .3583   .0337 -.1243 -.1249 -.1646
                                            .150   .2387   .1269   .0656   .0681   .0249
                                            .300   .1029   .0459   .0425   .0067 -.0153
                                            .520 -.0545 -.0616 -.0724 -.0514 -.1324
                                            .750 -.4822 -.6763 -.6800 -.6974 -.7055
                                            .900   -.5052 -.6648 -.6874 -.6453

ALPHA (2) = -.396 BETA (1) = -4.003   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .5923   .5146   .4767   .4216   .4117
                                            .025 -.1462 -.3421 -.5579 -.6847 -.8631
                                            .050 -.1778 -.3783 -.5580 -.6770 -.8241
                                            .150 -.0554 -.3537 -.5441 -.5632 -.7036
                                            .300 -.0702 -.2001 -.4332 -.4825 -.4715
                                            .520 -.2526 -.2593 -.3611 -.4574 -.3823
                                            .750 -.5701 -.7476 -.7146 -.7301 -.7802
                                            .900   -.6209 -.7354 -.7070 -.7071

ALPHA (2) = -.408 BETA (2) =   .009   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .6972   .5614   .5042   .5209   .5054
                                            .025   .1060 -.0208 -.1651 -.1979 -.2341
                                            .050   .3149   .0021 -.1336 -.1258 -.1605
                                            .150   .2117   .1008   .0351   .0451 -.0009
                                            .300   .0817   .0223   .0103 -.0139 -.0387
                                            .520 -.0746 -.0888 -.0966 -.0756 -.1564
                                            .750 -.4905 -.6819 -.6819 -.6967 -.7112
                                            .900   -.5178 -.6644 -.6869 -.6587

ALPHA (2) = -.339 BETA (3) = 4.028   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .5911   .4303   .3391   .3684   .3521
                                            .025   .5061   .3814   .2690   .2690   .2758
                                            .050   .4973   .3612   .2897   .2652   .2183
                                            .150   .3567   .2775   .2317   .2163   .1450
                                            .300   .2111   .1731   .1519   .1181   .0437
                                            .520   .0429   .0092 -.0066   .0095 -.1375
                                            .750 -.4752 -.6117 -.6306 -.6697 -.7162
                                            .900   -.4623 -.5870 -.6434 -.6988

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV06)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.984 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6739	.4904	.4080	.4304	.4159
.025	.0635	-.0789	-.2149	-.2449	-.2600
.050	.2541	-.0739	-.1870	-.1762	-.1898
.150	.1491	.0329	-.0370	-.0161	-.0541
.300	.0123	-.0504	-.0549	-.0631	-.0900
.520	-.1449	-.1471	-.1449	-.1207	-.2001
.750	-.5228	-.7063	-.6962	-.7111	-.7329
.900		-.5477	-.6804	-.7014	-.6892

TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

DATE 01 MAY 75

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL

(REUV07) (19 OCT 74)

PARAMETRIC DATA

REFERENCE DATA

ELV-IB =	8.000	ELV-OB =	4.000
RUDDER =	.000	MACH =	1.250
GIMBAL =	1.000		

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.131 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7775	.6566	.6189	.6294	.6273
.025	.2077	.0740	-.0616	-.1015	-.1163
.050	.3691	.1007	-.0454	-.0479	-.0577
.150	.3269	.2031	.1279	.1459	.1082
.300	.1887	.1259	.1016	.1035	.0878
.520	.0224	.0202	.0319	.0602	-.0030
.750	-.3753	-.5009	-.4879	-.4956	-.5099
.900		-.4198	-.4805	-.4952	-.4710

ALPHA (2) = -.300 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6392	.5738	.5451	.5016	.4957
.025	-.1014	-.2343	-.4155	-.6531	-.6614
.050	-.1182	-.2472	-.4146	-.6078	-.6509
.150	-.1100	-.2256	-.3841	-.4971	-.5836
.300	.0675	-.1273	-.2947	-.3068	-.4437
.520	-.1315	-.1577	-.2420	-.2531	-.2073
.750	-.4331	-.5619	-.5350	-.5663	-.5669
.900		-.4850	-.5570	-.5408	-.5486

ALPHA (2) = -.411 BETA (2) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7110	.6034	.5475	.5493	.5473
.025	.1258	.0365	-.0899	-.1296	-.1422
.050	.2949	.0621	-.0771	-.0755	-.0807
.150	.2728	.1653	.0852	.0987	.0709
.300	.1564	.0821	.0569	.0613	.0440
.520	-.0107	-.0200	-.0099	.0209	-.0394
.750	-.3812	-.5140	-.4980	-.5023	-.5232
.900		-.4428	-.4929	-.5017	-.4907

ALPHA (2) = -.438 BETA (3) = 4.031

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6356	.4976	.4295	.4513	.4474
.025	.5083	.4195	.2943	.3164	.3466
.050	.5126	.3958	.3279	.3246	.3005
.150	.4002	.3222	.2856	.2896	.2362
.300	.2603	.2196	.2199	.2167	.1520
.520	.0981	.0966	.0999	.1260	-.0030
.750	-.3895	-.4584	-.4546	-.4781	-.5212
.900		-.4016	-.4269	-.4653	-.5162

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV07)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.582 BETA (1) = .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7005	.5337	.4590	.4565	.4611
.025	.0377	-.0210	-.1379	-.1666	-.1768
.050	.2701	-.0113	-.1170	-.1189	-.1181
.150	.2056	.0965	.0281	.0485	.0311
.300	.0875	.0245	.0057	.0086	-.0061
.520	-.0684	-.0722	-.0629	-.0296	-.0839
.750	-.3977	-.5439	-.5228	-.5273	-.5489
.900		-.4417	-.5186	-.5233	-.5247

DATE 01 MAY 75   TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV08)   (19 OCT 74)

PARAMETRIC DATA

REFERENCE DATA

				ELV-IB =	8.000	ELV-OB =	4.000
SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT			RUDDER =	.000	MACH =	1.400
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT			GIMBAL =	1.000		
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT						
SCALE = .0200							

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) = .006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7846	.7123	.6576	.6667	.6673
.025	.2200	.1479	.0165	-.0022	-.0455
.050	.2946	.1656	.0264	.0180	.0067
.150	.3846	.2589	.1952	.2025	.1697
.300	.2509	.1872	.1612	.1703	.1528
.520	.0906	.0868	.1008	.1323	.0862
.750	-.2885	-.3645	-.3436	-.3444	-.3646
.900		-.3642	-.3425	-.3496	-.3425

ALPHA (2) = -.488 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6764	.6074	.5907	.5580	.5457
.025	-.1127	-.1256	-.3257	-.4977	-.4884
.050	-.1173	-.1413	-.3249	-.4685	-.5214
.150	-.0858	-.1410	-.2724	-.4022	-.4192
.300	.1625	-.0764	-.1782	-.2507	-.3333
.520	-.0406	-.0762	-.1520	-.1464	-.1310
.750	-.3426	-.4214	-.4140	-.4388	-.4174
.900		-.4239	-.4254	-.4209	-.4150

ALPHA (2) = -.430 BETA (2) = .016

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7050	.6553	.5874	.5885	.5927
.025	.1204	.1012	-.0113	-.0603	-.0685
.050	.2056	.1066	.0049	-.0089	-.0051
.150	.3306	.2173	.1510	.1639	.1444
.300	.2053	.1470	.1193	.1289	.1127
.520	.0529	.0470	.0584	.0933	.0451
.750	-.3074	-.3836	-.3627	-.3640	-.3852
.900		-.3884	-.3627	-.3652	-.3699

ALPHA (2) = -.456 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6687	.5301	.4850	.5046	.5112
.025	.5140	.4583	.3306	.3535	.3959
.050	.5284	.4364	.3760	.3719	.3677
.150	.4289	.3642	.3273	.3392	.3053
.300	.3048	.2627	.2713	.2835	.2340
.520	.1468	.1555	.1778	.2168	.1031
.750	-.3153	-.3334	-.3165	-.3278	-.3682
.900		-.3246	-.3020	-.3219	-.3699

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV018)

SECTION (1) VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 4.014 BETA (1) =   .009

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6615	.5607	.4912	.4821	.4869
.025	-.0270	.0221	-.0770	-.1147	-.1263
.050	.2036	.0230	-.0596	-.0658	-.0678
.150	.2190	.1496	.0818	.0990	.0939
.300	.1328	.0765	.0544	.0588	.0486
.520	-.0093	-.0151	-.0011	.0328	-.0087
.750	-.3059	-.4227	-.3946	-.3903	-.4104
.900		-.3924	-.3944	-.3882	-.4035

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM VERTICAL   (REUV09)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .5140   .3863   .4169   .4578   .4055
                                             .025   -.0810   -.2241   -.4467   -.5051   -.5811
                                             .050   .1145   -.2283   -.3799   -.4175   -.4878
                                             .150   -.0381   -.1415   -.1910   -.2017   -.2254
                                             .300   -.1876   -.1906   -.2196   -.2632   -.2935
                                             .520   -.3262   -.3628   -.3706   -.3349   -.4394
                                             .750   -.5429   -.6653 -1.1382   -.5901   -.4498
                                             .900   -.5423   -.5703   -.5294   -.4404

ALPHA (2) = -.438 BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .3817   .3250   .3170   .2585   .2222
                                             .025   -.4614   -.5987 -.9103 -1.0620 -1.2822
                                             .050   -.5049   -.7449   -.9061 -1.0598 -1.2775
                                             .150   -.2550   -.6086   -.8834   -.9080 -1.0195
                                             .300   -.3747   -.4729   -.7892   -.8192   -.8101
                                             .520   -.5469   -.5338   -.6412   -.7875   -.6971
                                             .750   -.5888   -.6979 -1.1370   -.6134   -.5148
                                             .900   -.6163   -.6346   -.4724   -.4325

ALPHA (2) = -.525 BETA (2) = -.003   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .4834   .3151   .3304   .3951   .3699
                                             .025   -.1250   -.2657   -.4685   -.4992   -.5408
                                             .050   .0741   -.2748   -.4121   -.4127   -.4662
                                             .150   -.0801   -.1841   -.2313   -.2056   -.2266
                                             .300   -.2247   -.2673   -.2476   -.2719   -.2877
                                             .520   -.3658   -.3840   -.3876   -.3256   -.4339
                                             .750   -.5130   -.6586 -1.1140   -.4613   -.3387
                                             .900   -.5473   -.5369   -.3784   -.2984

ALPHA (2) = -.441 BETA (3) = 4.025   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .3735   .2181   .1375   .1983   .1562
                                             .025   .2663   .1618   .0861   .0968   .0856
                                             .050   .2590   .1455   .0962   .0829   .0123
                                             .150   .1086   .0520   .0321   .0123   -.0741
                                             .300   -.0347   -.0415   -.0681   -.1153   -.2039
                                             .520   -.2076   -.2431   -.2714   -.2455   -.4312
                                             .750   -.5080   -.6540 -1.0391   -.8844   -.6539
                                             .900   -.5161   -.7090   -.6317   -.5059
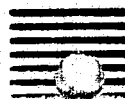
ARC11-014IA19 OTS+STRUT SRB-LCW MPS-NOM VERTICAL   (REUV09)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = -4.050 BETA (1) = .006	Z/BV X/CV	.158	.316	.600	.840	.925
	.000	.4605	.2819	.2188	.3297	.3076
	.025	-.1913	-.3257	-.5176	-.4749	-.5198
	.050	.0063	-.2260	-.4678	-.3750	-.4391
	.150	-.1072	-.2367	-.2919	-.2098	-.2382
	.300	-.2460	-.3322	-.2996	-.2776	-.2955
	.520	-.4059	-.4383	-.3841	-.3364	-.4478
	.750	-.4655	-.6332	-.7842	-.4498	-.2963
	.900		-.5052	-.4292	-.3713	-.2575

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM VERTICAL   (REUV19)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT		
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT		
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT		
SCALE = .0200			

ELV-IB = 8.000   ELV-OB = 4.000
RUDDER = .000   MACH = 1.100
GIMBAL = 1.000

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -3.978 BETA (1) = -.006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7260	.5911	.5674	.5928	.5641
.025	.1853	.0342	-.1470	-.1875	-.2319
.050	.3640	.0340	-.1116	-.1183	-.1616
.150	.2421	.1313	.0650	.0677	.0265
.300	.1064	.0483	.0443	.0087	-.0142
.520	-.0520	-.0601	-.0704	-.0506	-.1319
.750	-.4901	-.6738	-.6765	-.6955	-.7047
.900		-.5131	-.6624	-.6863	-.6442

ALPHA (2) = -.387 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5923	.5143	.4780	.4281	.4139
.025	-.1433	-.3214	-.5575	-.6838	-.8635
.050	-.1793	-.3819	-.5528	-.6835	-.8252
.150	-.0518	-.3466	-.5459	-.5657	-.7007
.300	-.0703	-.2062	-.4373	-.4864	-.4756
.520	-.2534	-.2594	-.3574	-.4592	-.3848
.750	-.5856	-.7491	-.7152	-.7338	-.7827
.900		-.6367	-.7365	-.7099	-.7091

ALPHA (2) = -.429 BETA (2) = .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6972	.5622	.5024	.5261	.5032
.025	.1082	-.0097	-.1591	-.2016	-.2308
.050	.3153	.0032	-.1366	-.1295	-.1599
.150	.2125	.1012	.0334	.0433	-.0010
.300	.0856	.0206	.0123	-.0127	-.0375
.520	-.0744	-.0877	-.0965	-.0757	-.1551
.750	-.4983	-.6779	-.6781	-.6958	-.7100
.900		-.5241	-.6611	-.6856	-.6575

ALPHA (2) = -.384 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5859	.4271	.3363	.3830	.3504
.025	.5027	.3793	.2683	.2670	.2765
.050	.4945	.3573	.2875	.2610	.2157
.150	.3541	.2748	.2277	.2167	.1441
.300	.2092	.1717	.1493	.1176	.0420
.520	.0418	.0075	-.0091	.0094	-.1377
.750	-.4849	-.6112	-.6303	-.6697	-.7148
.900		-.4638	-.5861	-.6425	-.5979

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM VERTICAL   (REUV10)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.930 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6723	.4885	.4111	.4310	.4158
.025	.0636	-.0780	-.2174	-.2423	-.2589
.050	.2536	-.0741	-.1924	-.1764	-.1851
.150	.1489	.0318	-.0378	-.0155	-.0521
.300	.0101	-.0493	-.0559	-.0623	-.0898
.520	-.1471	-.1492	-.1450	-.1203	-.2013
.750	-.5329	-.7082	-.6975	-.7123	-.7337
.900		-.5567	-.6811	-.7022	-.6903

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM VERTICAL   (REUV11)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.746 BETA (1) =   .006   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                             .000   .7812   .6608   .6197   .6312   .6275
                                             .025   .2169   .0774   -.0578   -.0972   -.1109
                                             .050   .3740   .1086   -.0491   -.0434   -.0511
                                             .150   .3307   .2071   .1282   .1491   .1101
                                             .300   .1915   .1231   .1046   .1063   .0881
                                             .520   .0228   .0187   .0315   .0601   -.0054
                                             .750   -.3848   -.5073   -.4944   -.5018   -.5155
                                             .900   -.4244   -.4867   -.5020   -.4754

ALPHA (2) = -.444 BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                             .000   .6369   .5716   .5399   .4885   .4866
                                             .025   -.1024   -.2376   -.4256   -.6624   -.6723
                                             .050   -.1201   -.2518   -.4254   -.6163   -.6578
                                             .150   -.1138   -.2291   -.3925   -.4972   -.5946
                                             .300   .0639   -.1298   -.3017   -.3108   -.4523
                                             .520   -.1363   -.1620   -.2492   -.2673   -.2157
                                             .750   -.4398   -.5706   -.5447   -.5754   -.5756
                                             .900   -.4922   -.5671   -.5498   -.5576

ALPHA (2) = -.402 BETA (2) =   .012   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                             .000   .7067   .6009   .5340   .5425   .5373
                                             .025   .1181   .0299   -.1005   -.1351   -.1509
                                             .050   .2875   .0540   -.0798   -.0838   -.0924
                                             .150   .2671   .1586   .0740   .0929   .0653
                                             .300   .1468   .0741   .0478   .0520   .0355
                                             .520   -.0193   -.0299   -.0187   .0116   -.0490
                                             .750   -.3977   -.5273   -.5117   -.5169   -.5374
                                             .900   -.4654   -.5061   -.5169   -.5065

ALPHA (2) = -.324 BETA (3) = 4.034   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                             .000   .6359   .4953   .4236   .4443   .4436
                                             .025   .5113   .4275   .3023   .3185   .3520
                                             .050   .5267   .4067   .3347   .3230   .3053
                                             .150   .4057   .3232   .2872   .2910   .2405
                                             .300   .2680   .2212   .2236   .2170   .1534
                                             .520   .1059   .0957   .0985   .1267   -.0031
                                             .750   -.3991   -.4577   -.4560   -.4809   -.5245
                                             .900   -.3989   -.4274   -.4676   -.5175

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM VERTICAL   (REUV11)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.552 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7029	.5346	.4559	.4548	.4600
.025	.0385	-.0184	-.1300	-.1628	-.1754
.050	.2750	-.0059	-.1117	-.1082	-.1110
.150	.2071	.0995	.0271	.0499	.0310
.300	.0853	.0236	.0077	.0095	-.0062
.520	-.0675	-.0738	-.0632	-.0254	-.0860
.750	-.4063	-.5488	-.5278	-.5298	-.5519
.900		-.4593	-.5225	-.5260	-.5274

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM VERTICAL   (REUVI2) (19 OCT 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN. YMRP = .0000 IN. YT
BREF = 1290.3000 IN. ZMRP = 400.0000 IN. ZT
SCALE = .0200

ELV-IB = 8.000 ELV-OB = 4.000
RUDDER = .000 MACH = 1.400
GIMBAL = 1.000

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) = .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7829	.7188	.6623	.6667	.6701
.025	.2222	.1509	.0137	-.0352	-.0485
.050	.3100	.1661	.0272	.0147	.0034
.150	.3883	.2592	.1947	.2030	.1649
.300	.2486	.1900	.1630	.1716	.1533
.520	.0903	.0887	.0998	.1323	.0847
.750	-.3156	-.3676	-.3454	-.3481	-.3679
.900		-.3715	-.3443	-.3526	-.3461

ALPHA (2) = -.396 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6754	.6114	.5892	.5539	.5489
.025	-.1154	-.1177	-.3233	-.4971	-.4863
.050	-.1206	-.1360	-.3243	-.4681	-.5197
.150	-.0945	-.1424	-.2751	-.4017	-.4174
.300	.1647	-.0834	-.1840	-.2506	-.3327
.520	-.0392	-.0750	-.1508	-.1493	-.1346
.750	-.3676	-.4182	-.4152	-.4381	-.4146
.900		-.4406	-.4246	-.4169	-.4184

ALPHA (2) = -.378 BETA (2) = .006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7075	.6647	.5890	.5901	.5957
.025	.1225	.1034	-.0162	-.0656	-.0752
.050	.1995	.1059	-.0073	-.0157	-.0229
.150	.3290	.2204	.1509	.1596	.1371
.300	.2074	.1467	.1190	.1297	.1125
.520	.0562	.0479	.0587	.0938	.0472
.750	-.3318	-.3827	-.3641	-.3625	-.3846
.900		-.3942	-.3628	-.3637	-.3670

ALPHA (2) = -.315 BETA (3) = 4.025

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6740	.5394	.4871	.5080	.5167
.025	.5249	.4674	.3496	.3602	.3975
.050	.5359	.4440	.3830	.3755	.3732
.150	.4349	.3683	.3343	.3447	.3091
.300	.3091	.2635	.2762	.2864	.2394
.520	.1568	.1589	.1825	.2201	.1086
.750	-.3229	-.3288	-.3107	-.3230	-.3627
.900		-.3217	-.2978	-.3164	-.3641

DATE 01 MAY 75   TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM VERTICAL   (REUV12)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 4.005 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6670	.5696	.4985	.4835	.4905
.025	-.0307	.0234	-.0657	-.1123	-.1173
.050	.2049	.0213	-.0560	-.0605	-.0674
.150	.2186	.1490	.0870	.0981	.0954
.300	.1311	.0779	.0564	.0582	.0492
.520	-.0092	-.0157	-.0041	.0350	-.0076
.750	-.3266	-.4242	-.3973	-.3913	-.4139
.900		-.4155	-.3972	-.3925	-.4061

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF VERTICAL   (REUV13)   (19 OCT 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT	ELV-IB = 8.000	ELV-OB = 4.000
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT	RUDDER = .000	MACH = .900
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT	GIMBAL = 1.000	
SCALE = .0200			

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (-1) = -4.119 BETA (1) = -.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5157	.3721	.4327	.4741	.4187
.025	-.0826	-.2057	-.4113	-.4713	-.5436
.050	.1172	-.2301	-.3471	-.3787	-.4655
.150	-.0432	-.1420	-.1594	-.1752	-.1929
.300	-.1867	-.1771	-.1883	-.2265	-.2536
.520	-.3112	-.3146	-.3243	-.3053	-.3993
.750	-.3139	-.3607	-.4853	-.3505	-.2650
.900		-.2652	-.3228	-.3136	-.2015

ALPHA (2) = -.390 BETA (1) = -3.997

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3781	.3084	.3222	.2585	.2283
.025	-.4705	-.5856	-.9115	-.9905	-1.1445
.050	-.5139	-.7425	-.9072	-.9873	-1.1182
.150	-.2618	-.6561	-.8954	-.8620	-1.1017
.300	-.3839	-.4660	-.7735	-.7603	-.8788
.520	-.5422	-.4313	-.6131	-.6272	-.4800
.750	-.3393	-.3541	-.4239	-.3243	-.2520
.900		-.3138	-.2610	-.2544	-.1765

ALPHA (2) = -.378 BETA (2) = .016

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4888	.3184	.3466	.4189	.3838
.025	-.1283	-.2520	-.4418	-.4489	-.4926
.050	.0762	-.2665	-.3929	-.3445	-.4023
.150	-.0797	-.1821	-.1907	-.1613	-.1822
.300	-.2240	-.2542	-.2029	-.2221	-.2426
.520	-.3229	-.3137	-.3111	-.2873	-.3959
.750	-.2668	-.3464	-.4399	-.3433	-.2495
.900		-.2793	-.2623	-.3264	-.1634

ALPHA (2) = -.327 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3580	.1926	.1381	.1922	.1381
.025	.2508	.1436	.1253	.1405	.1023
.050	.2476	.1232	.1335	.1188	.0241
.150	.0872	.0477	.0597	.0416	-.0629
.300	-.0502	-.0202	-.0356	-.0926	-.1945
.520	-.2053	-.2211	-.2447	-.2425	-.4182
.750	-.3077	-.2840	-.4668	-.7642	-.6628
.900		-.2335	-.2024	-.4433	-.3830

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF VERTICAL   (REUV13)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.909 BETA (1) =   .000

X/CV	Z/BV .158	.316	.600	.840	.925
.000	.3406	.2527	.3209	.3689	.3143
.025	-.1660	-.3409	-.4152	-.4177	-.4838
.050	-.0455	-.2392	-.3444	-.3082	-.3916
.150	-.1256	-.2487	-.1705	-.1685	-.2069
.300	-.2620	-.2640	-.1801	-.2392	-.2748
.520	-.3577	-.2983	-.3259	-.3103	-.4380
.750	-.2705	-.2796	-.4809	-.3432	-.2469
.900		-.2461	-.2345	-.3121	-.1681

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF VERTICAL   (REUV14)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -5.142 BETA (1) = -.006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7324	.6053	.5817	.6093	.5784
.025	.1934	.1060	-.1441	-.1886	-.2322
.050	.3701	.0371	-.1179	-.1167	-.1623
.150	.2450	.1315	.0699	.0688	.0289
.300	.1082	.0528	.0471	.0076	-.0124
.520	-.0494	-.0588	-.0700	-.0479	-.1313
.750	-.3597	-.6720	-.6853	-.7037	-.7111
.900		-.3953	-.6713	-.6944	-.6487

ALPHA (2) = -.321 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5904	.5172	.4766	.4272	.4090
.025	-.1511	-.2797	-.5648	-.6908	-.8691
.050	-.1830	-.3846	-.5646	-.6867	-.8292
.150	-.0630	-.3611	-.5521	-.5701	-.7051
.300	-.0718	-.2079	-.4369	-.4936	-.4846
.520	-.2566	-.2649	-.3619	-.4696	-.3922
.750	-.4210	-.6374	-.7204	-.7383	-.7866
.900		-.4684	-.7406	-.7134	-.7137

ALPHA (2) = -.432 BETA (2) =   .016

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6992	.5581	.5085	.5279	.0042
.025	.1002	.0065	-.1817	-.2097	-.2457
.050	.3105	-.0089	-.1560	-.1468	-.1774
.150	.2060	.0951	.0282	.0355	-.0110
.300	.0786	.0153	.0055	-.0219	-.0447
.520	-.0815	-.0928	-.1022	-.0840	-.1610
.750	-.3552	-.6650	-.6845	-.7024	-.7165
.900		-.3928	-.6684	-.6924	-.6633

ALPHA (2) = -.396 BETA (3) = 4.025

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5899	.4281	.3367	.3821	.3507
.025	.5019	.3822	.2611	.2616	.2723
.050	.4952	.3548	.2828	.2606	.2153
.150	.3540	.2739	.2260	.2135	.1416
.300	.2054	.1714	.1463	.1143	.0368
.520	.0393	.0050	-.0116	.0055	-.1426
.750	-.3879	-.6037	-.6373	-.6759	-.7215
.900		-.4069	-.5914	-.6482	-.7038

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF VERTICAL   (REUV14)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.864 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6728	.4900	.4058	.4277	.4097
.025	.0635	-.0599	-.2178	-.2407	-.2602
.050	.2558	-.0771	-.1972	-.1791	-.1887
.150	.1487	.0304	-.0396	-.0214	-.0545
.300	.0092	-.0514	-.0575	-.0658	-.0924
.520	-.1465	-.1502	-.1480	-.1236	-.2032
.750	-.3723	-.6628	-.6986	-.7142	-.7352
.900		-.4067	-.6829	-.7037	-.6906

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF VERTICAL   (REUV15)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.513 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7781	.6567	.6233	.6314	.6275
.025	.2109	.0790	-.0558	-.0965	-.1158
.050	.3714	.1147	-.0462	-.0448	-.0585
.150	.3283	.2088	.1310	.1453	.1088
.300	.1916	.1255	.1084	.1060	.0889
.520	.0262	.0227	.0353	.0639	.0008
.750	-.2755	-.4941	-.4807	-.4888	-.5039
.900		-.3118	-.4739	-.4891	-.4647

ALPHA (2) = -.390 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6380	.5722	.5437	.4975	.4935
.025	-.0986	-.2249	-.4193	-.6540	-.6611
.050	-.1136	-.2466	-.4188	-.6104	-.6516
.150	-.1014	-.2261	-.3870	-.4992	-.5831
.300	.0665	-.1282	-.2941	-.3059	-.4485
.520	-.1325	-.1568	-.2425	-.2584	-.2048
.750	-.3256	-.5473	-.5372	-.5672	-.5690
.900		-.3629	-.5591	-.5421	-.5512

ALPHA (2) = -.363 BETA (2) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7157	.6106	.5463	.5514	.5480
.025	.1244	.0399	-.0894	-.1277	-.1465
.050	.2929	.0611	-.0775	-.0770	-.0846
.150	.2768	.1661	.0832	.1000	.0734
.300	.1523	.0807	.0578	.0608	.0439
.520	-.0101	-.0199	-.0092	.0209	-.0388
.750	-.2832	-.5107	-.4956	-.5012	-.5216
.900		-.3193	-.4896	-.5009	-.4907

ALPHA (2) = -.294 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6346	.4969	.4301	.4528	.4478
.025	.5074	.4195	.2998	.3141	.3462
.050	.5178	.4017	.3343	.3209	.3017
.150	.3982	.3170	.2872	.2908	.2384
.300	.2662	.2209	.2220	.2178	.1523
.520	.0990	.0978	.1000	.1301	.0013
.750	-.2883	-.4491	-.4500	-.4737	-.5168
.900		-.3003	-.4233	-.4603	-.5105

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF VERTICAL   (REUV15)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.834 BETA (1) =   .012

X/CV	Z/BV .158	.316	.600	.840	.925
.000	.7038	.5353	.4568	.4546	.4583
.025	.0454	-.0123	-.1262	-.1676	-.1730
.050	.2736	-.0070	-.1176	-.1100	-.1104
.150	.2068	.0988	.0290	.0506	.0316
.300	.0880	.0235	.0086	.0111	-.0032
.520	-.0628	-.0697	-.0605	-.0279	-.0848
.750	-.2944	-.5391	-.5205	-.5256	-.5474
.900		-.3253	-.5152	-.5215	-.5229

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF VERTICAL   (REUV16)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.095 BETA (1) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7816	.7183	.6561	.6660	.6669
.025	.2270	.1561	.0158	-.0366	-.0486
.050	.3149	.1728	.0330	.0166	.0154
.150	.3874	.2577	.1949	.2062	.1681
.300	.2520	.1902	.1624	.1716	.1549
.520	.0913	.0889	.1001	.1334	.0859
.750	-.2345	-.3681	-.3448	-.3469	-.3661
.900		-.3047	-.3425	-.3501	-.3439

ALPHA (2) = -.393 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6790	.6123	.5904	.5523	.5482
.025	-.1128	-.0950	-.3212	-.4981	-.4846
.050	-.1196	-.1366	-.3227	-.4681	-.5188
.150	-.0966	-.1420	-.2741	-.4007	-.4145
.300	.1657	-.0833	-.1829	-.2469	-.3313
.520	-.0411	-.0773	-.1508	-.1466	-.1391
.750	-.2744	-.4175	-.4143	-.4368	-.4160
.900		-.3104	-.4240	-.4156	-.4151

ALPHA (2) = -.291 BETA (2) = -.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7073	.6588	.5877	.5876	.5937
.025	.1228	.1091	-.0172	-.0642	-.0712
.050	.1952	.1028	-.0077	-.0090	-.0218
.150	.3245	.2157	.1462	.1585	.1374
.300	.2041	.1457	.1179	.1267	.1119
.520	.0524	.0454	.0562	.0920	.0458
.750	-.2444	-.3836	-.3637	-.3635	-.3852
.900		-.3111	-.3637	-.3637	-.3691

ALPHA (2) = -.318 BETA (3) = 4.025

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6742	.5352	.4889	.5086	.5138
.025	.5190	.4652	.3465	.3607	.3963
.050	.5351	.4415	.3825	.3743	.3713
.150	.4331	.3697	.3327	.3454	.3087
.300	.3141	.2652	.2771	.2879	.2385
.520	.1496	.1584	.1807	.2193	.1078
.750	-.2337	-.3289	-.3119	-.3250	-.3647
.900		-.2948	-.2962	-.3187	-.3647

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF VERTICAL   (REUV16)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.861 BETA (1) = -.006

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6709	.5749	.5022	.4893	.4943
.025	-.0190	.0455	-.0693	-.1073	-.1186
.050	.2038	.0299	-.0548	-.0562	-.0645
.150	.2214	.1567	.0894	.1041	.0989
.300	.1354	.0787	.0610	.0660	.0598
.520	-.0034	-.0114	.0009	.0375	-.0048
.750	-.2371	-.4181	-.3906	-.3854	-.4057
.900		-.2807	-.3894	-.3839	-.3984

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI VERTICAL   (REUV17)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5325	.3935	.4217	.4682	.4142
.025	-.0539	-.1974	-.4185	-.4788	-.5430
.050	.1425	-.2034	-.3552	-.3888	-.4582
.150	-.0147	-.1194	-.1716	-.1870	-.2057
.300	-.1604	-.1889	-.1995	-.2504	-.2657
.520	-.2961	-.3345	-.3441	-.3108	-.4059
.750	-.5246	-.6648	-1.1002	-.5625	-.4396
.900		-.5493	-.6101	-.5105	-.3930

ALPHA (2) = -.426 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3766	.3147	.3127	.2520	.2190
.025	-.4704	-.6178	-.9221	-1.0740	-1.2986
.050	-.5142	-.7555	-.9182	-1.0692	-1.2901
.150	-.2617	-.6212	-.9064	-.9179	-1.0296
.300	-.3868	-.4764	-.7939	-.8369	-.8226
.520	-.5597	-.5384	-.6514	-.8052	-.7149
.750	-.6051	-.6961	-1.1512	-.6504	-.5547
.900		-.6178	-.6883	-.5056	-.4771

ALPHA (2) = -.447 BETA (2) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4938	.3455	.3234	.3771	.3500
.025	-.1283	-.2713	-.4633	-.5089	-.5566
.050	.0800	-.2896	-.4138	-.4384	-.4813
.150	-.0785	-.1917	-.2331	-.2234	-.2421
.300	-.2301	-.2582	-.2564	-.2904	-.2937
.520	-.3711	-.3751	-.3907	-.3432	-.4468
.750	-.5101	-.6783	-1.1146	-.5444	-.3841
.900		-.5646	-.5756	-.4878	-.3472

ALPHA (2) = -.435 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3884	.2358	.1444	.2103	.1710
.025	.2863	.1733	.0718	.0925	.0917
.050	.2741	.1508	.0856	.0687	.0197
.150	.1190	.0729	.0287	.0053	-.0582
.300	-.0190	-.0469	-.0671	-.1120	-.1876
.520	-.1816	-.2376	-.2701	-.2353	-.4137
.750	-.4780	-.6442	-1.0275	-1.0388	-.6490
.900		-.5339	-.8977	-.6476	-.4889

ARC11-014IA19 OTS+STRUT SRB-HI   MPS-HI   VERTICAL   (REUV17)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.930 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4452	.2644	.2537	.3075	.2493
.025	-.2313	-.3623	-.5374	-.5286	-.5706
.050	-.0153	-.3643	-.4847	-.4512	-.4846
.150	-.1556	-.2780	-.3013	-.2322	-.2704
.300	-.3126	-.3161	-.3168	-.2961	-.3279
.520	-.4644	-.4459	-.3953	-.3786	-.4818
.750	-.5419	-.5629	-.8448	-.4935	-.3609
.900		-.4751	-.4894	-.4321	-.3124

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI VERTICAL   (REUV18)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.098 BETA (1) =   .000

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7290	.5927	.5720	.5893	.5684
.025	.1852	.0065	-.1530	-.1889	-.2382
.050	.3668	.0359	-.1231	-.1290	-.1645
.150	.2397	.1297	.0656	.0683	.0258
.300	.1070	.0466	.0435	.0067	-.0148
.520	-.0538	-.0606	-.0728	-.0505	-.1339
.750	-.4292	-.6782	-.6826	-.7013	-.7089
.900		-.4664	-.6671	-.6912	-.6485

ALPHA (2) = -.396 BETA (1) = -4.003

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.5933	.5155	.4822	.4267	.4131
.025	-.1459	-.3549	-.5626	-.6850	-.8672
.050	-.1787	-.3816	-.5587	-.6788	-.8278
.150	-.0567	-.3551	-.5500	-.5654	-.7043
.300	-.0697	-.2008	-.4356	-.4832	-.4802
.520	-.2531	-.2615	-.3603	-.4571	-.3923
.750	-.5155	-.7482	-.7168	-.7336	-.7836
.900		-.5646	-.7369	-.7100	-.7098

ALPHA (2) = -.438 BETA (2) =   .009

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7005	.5629	.5082	.5221	.5070
.025	.1086	-.0239	-.1614	-.1966	-.2313
.050	.3170	.0011	-.1368	-.1253	-.1568
.150	.2144	.1016	.0363	.0455	-.0007
.300	.0839	.0222	.0128	-.0139	-.0376
.520	-.0710	-.0882	-.0962	-.0741	-.1557
.750	-.4359	-.6807	-.6820	-.6988	-.7126
.900		-.4758	-.6650	-.6882	-.6598

ALPHA (2) = -.573 BETA (3) = 4.028

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.5923	.4312	.3397	.3675	.3528
.025	.5036	.3818	.2666	.2658	.2797
.050	.4974	.3601	.2861	.2666	.2174
.150	.3575	.2758	.2307	.2157	.1450
.300	.2097	.1739	.1482	.1177	.0405
.520	.0436	.0088	-.0073	.0089	-.1393
.750	-.4413	-.6101	-.6321	-.6722	-.7196
.900		-.4410	-.5887	-.6448	-.7025

ARC11-014IA19 OTS+STRUT SRB-HI   MPS-HI   VERTICAL   (REUV18)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.915 BETA (1) =   .000

X/CV	Z/BV .158	.316	.600	.840	.925
.000	.6720	.4888	.4086	.4180	.4146
.025	.0616	-.0849	-.2179	-.2383	-.2637
.050	.2521	-.0757	-.1899	-.1774	-.1954
.150	.1477	.0305	-.0375	-.0197	-.0553
.300	.0088	-.0508	-.0546	-.0635	-.0900
.520	-.1465	-.1483	-.1464	-.1209	-.2004
.750	-.4571	-.7080	-.6966	-.7111	-.7317
.900		-.5011	-.6805	-.7004	-.6886

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI VERTICAL   (REUV19)   (19 OCT 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   1.250
GIMBAL =   1.000

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.185 BETA (1) = -.009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7775	.6509	.6247	.6347	.6292
.025	.2039	.0689	-.0647	-.1086	-.1219
.050	.3513	.1034	-.0556	-.0573	-.0740
.150	.3231	.2022	.1270	.1411	.1019
.300	.1868	.1249	.1020	.1050	.0854
.520	.0196	.0220	.0306	.0619	-.0013
.750	-.3205	-.4979	-.4835	-.4901	-.5050
.900		-.3607	-.4782	-.4906	-.4664

ALPHA (2) = -.459 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6391	.5759	.5449	.5039	.4962
.025	-.0975	-.2296	-.4149	-.6500	-.6570
.050	-.1143	-.2455	-.4138	-.6039	-.6482
.150	-.0978	-.2248	-.3835	-.4950	-.5770
.300	.0704	-.1200	-.2893	-.3002	-.4440
.520	-.1302	-.1542	-.2359	-.2511	-.1954
.750	-.3862	-.5599	-.5346	-.5647	-.5638
.900		-.4238	-.5553	-.5391	-.5459

ALPHA (2) = -.438 BETA (2) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7180	.6126	.5480	.5505	.5524
.025	.1256	.0350	-.0918	-.1291	-.1427
.050	.2983	.0620	-.0767	-.0732	-.0801
.150	.2738	.1689	.0842	.0993	.0690
.300	.1548	.0845	.0563	.0640	.0440
.520	-.0101	-.0184	-.0069	.0229	-.0380
.750	-.3320	-.5108	-.4958	-.5006	-.5219
.900		-.3763	-.4892	-.5006	-.4909

ALPHA (2) = -.549 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6372	.5024	.4360	.4590	.4542
.025	.5105	.4190	.2987	.3238	.3502
.050	.5205	.4033	.3349	.3290	.3024
.150	.4024	.3203	.2905	.2972	.2392
.300	.2656	.2234	.2277	.2217	.1574
.520	.1001	.0951	.1063	.1317	.0023
.750	-.3340	-.4517	-.4484	-.4737	-.5173
.900		-.3473	-.4207	-.4604	-.5113
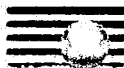
ARC11-014IA19.OTS+STRUT SRB-HI MPS-HI   VERTICAL   (REUV19)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.516 BETA (1) =   .012

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7007	.5341	.4591	.4541	.4551
.025	.0128	-.0330	-.1413	-.1833	-.1909
.050	.2591	-.0233	-.1370	-.1331	-.1485
.150	.1982	.0910	.0216	.0420	.0097
.300	.0803	.0202	.0000	.0020	-.0145
.520	-.0771	-.0768	-.0674	-.0342	-.0891
.750	-.3508	-.5486	-.5263	-.5295	-.5520
.900		-.3890	-.5227	-.5255	-.5264

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI   VERTICAL   (REUV20)   (19 OCT 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   1.400
GIMBAL =   1.000

SECTION (1) VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7763	.7141	.6538	.6763	.6644
.025	.2180	.1999	.0126	-.0423	-.0501
.050	.3003	.1602	.0200	.0084	.0045
.150	.3800	.2543	.1922	.2033	.1637
.300	.2466	.1884	.1606	.1670	.1507
.520	.0859	.0865	.0995	.1299	.0816
.750	-.2634	-.3664	-.3456	-.3469	-.3662
.900		-.3502	-.3426	-.3502	-.3432

ALPHA (2) = -.489 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6762	.6124	.5918	.5573	.5377
.025	-.1159	-.0425	-.3231	-.4946	-.4880
.050	-.1263	-.1396	-.3231	-.4680	-.5223
.150	-.0920	-.1428	-.2735	-.4025	-.4173
.300	.1624	-.0819	-.1774	-.2524	-.3311
.520	-.0425	-.0747	-.1531	-.1458	-.1457
.750	-.3145	-.4172	-.4127	-.4385	-.4159
.900		-.3828	-.4217	-.4166	-.4163

ALPHA (2) = -.432 BETA (2) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7088	.6667	.5934	.6019	.5999
.025	.1257	.1620	-.0149	-.0648	-.0736
.050	.2094	.1065	-.0011	-.0266	-.0261
.150	.3301	.2134	.1556	.1589	.1371
.300	.2051	.1494	.1229	.1250	.1184
.520	.0540	.0489	.0616	.0951	.0497
.750	-.2708	-.3759	-.3580	-.3556	-.3756
.900		-.3578	-.3566	-.3551	-.3599

ALPHA (2) = -.486 BETA (3) = 4.025

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6740	.5400	.4901	.5220	.5157
.025	.5144	.4697	.3456	.3558	.3975
.050	.5311	.4373	.3790	.3732	.3687
.150	.4314	.3653	.3316	.3469	.3080
.300	.3089	.2610	.2768	.2870	.2364
.520	.1505	.1606	.1829	.2182	.1074
.750	-.2760	-.3282	-.3102	-.3242	-.3637
.900		-.3130	-.2974	-.3176	-.3646
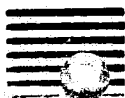
ARC11-014IA19 OTS+STRUT SRB-HI   MPS-HI   VERTICAL   (REUV20)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.657 BETA (1) =   .009

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6733	.5881	.5096	.5048	.5043
.025	-.0359	.0794	-.0668	-.1079	-.1146
.050	.1923	.0244	-.0548	-.0575	-.0654
.150	.2236	.1581	.0922	.1061	.1039
.300	.1374	.0832	.0647	.0726	.0596
.520	.0008	-.0071	.0040	.0440	-.0026
.750	-.2783	-.4116	-.3861	-.3808	-.4008
.900		-.3567	-.3866	-.3794	-.3913

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV21)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT	
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT	
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT	
SCALE = .0200		

ELV-IB =	8.000	ELV-CB =	.000
RUDDER =	.000	MACH =	1.400
GIMBAL =	1.000		

SECTION (1) VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.200 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7822	.7265	.6596	.6804	.6691
.025	.2221	.2829	.0157	-.0358	-.0474
.050	.3172	.1686	.0256	.0142	.0062
.150	.3869	.2589	.1960	.1996	.1717
.300	.2514	.1900	.1652	.1700	.1562
.520	.0895	.0855	.1008	.1355	.0882
.750	-.3092	-.3615	-.3410	-.3415	-.3601
.900		-.3673	-.3391	-.3454	-.3383

ALPHA (2) = -.180 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6726	.6104	.5918	.5498	.5334
.025	-.1152	.0527	-.3218	-.4927	-.4845
.050	-.1210	-.1403	-.3221	-.4674	-.5189
.150	-.0951	-.1397	-.2765	-.4027	-.4167
.300	.1630	-.0806	-.1761	-.2565	-.3297
.520	-.0409	-.0754	-.1536	-.1483	-.1360
.750	-.3458	-.4157	-.4122	-.4354	-.4108
.900		-.4321	-.4225	-.4145	-.4139

ALPHA (2) = -.291 BETA (2) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7060	.6670	.5891	.5936	.5945
.025	.1069	.2279	-.0113	-.0547	-.0680
.050	.1928	.1094	-.0027	-.0151	-.0169
.150	.3267	.2213	.1484	.1607	.1420
.300	.2085	.1458	.1232	.1284	.1155
.520	.0550	.0492	.0601	.0984	.0493
.750	-.3166	-.3779	-.3582	-.3566	-.3775
.900		-.3871	-.3585	-.3569	-.3617

ALPHA (2) = -.306 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6693	.5367	.4864	.5184	.5126
.025	.5179	.4787	.3439	.3566	.4002
.050	.5345	.4381	.3788	.3729	.3693
.150	.4310	.3655	.3310	.3457	.3076
.300	.3067	.2610	.2767	.2864	.2351
.520	.1513	.1567	.1833	.2196	.1087
.750	-.3263	-.3262	-.3089	-.3225	-.3625
.900		-.3200	-.2955	-.3162	-.3636

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV21)

SECTION (1) VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.969 BETA (1) =   .006

X/CV	Z/BV .158	.316	.600	.840	.925
.000	.6625	.5765	.4970	.4946	.4923
.025	-.0309	.1543	-.0668	-.1131	-.1197
.050	.2006	.0245	-.0593	-.0552	-.0655
.150	.2183	.1521	.0855	.1018	.0949
.300	.1347	.0820	.0568	.0654	.0562
.520	-.0051	-.0095	-.0025	.0394	-.0069
.750	-.3193	-.4158	-.3893	-.3848	-.4334
.900		-.4096	-.3869	-.3812	-.3944

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV22)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .006

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7794	.7192	.6575	.6785	.6630
.025	.2145	.2124	.0189	-.0438	-.0510
.050	.3091	.1627	.0228	.0163	.0104
.150	.3830	.2575	.1911	.1958	.1590
.300	.2464	.1886	.1614	.1694	.1556
.520	.0857	.0854	.0942	.1301	.0822
.750	-.2992	-.3666	-.3456	-.3459	-.3655
.900		-.3664	-.3441	-.3504	-.3433

ALPHA (2) = -.348 BETA (1) = -3.997

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6748	.6145	.5910	.5549	.5372
.025	-.1135	-.0304	-.3225	-.4945	-.4855
.050	-.1229	-.1421	-.3226	-.4700	-.5192
.150	-.1054	-.1403	-.2772	-.4025	-.4162
.300	.1656	-.0799	-.1778	-.2570	-.3295
.520	-.0411	-.0759	-.1516	-.1449	-.1358
.750	-.3426	-.4162	-.4130	-.4362	-.4122
.900		-.4280	-.4229	-.4142	-.4137

ALPHA (2) = -.366 BETA (2) =   .012

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7102	.6688	.5953	.6006	.6004
.025	.1213	.1655	-.0069	-.0626	-.0746
.050	.2025	.1084	-.0074	-.0101	-.0264
.150	.3288	.2172	.1558	.1612	.1436
.300	.2076	.1458	.1249	.1345	.1181
.520	.0554	.0505	.0603	.0988	.0499
.750	-.3074	-.3765	-.3575	-.3563	-.3786
.900		-.3834	-.3566	-.3587	-.3623

ALPHA (2) = -.522 BETA (3) = 4.031

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6732	.5410	.4880	.5216	.5170
.025	.5132	.4696	.3441	.3527	.3979
.050	.5333	.4381	.3787	.3709	.3695
.150	.4347	.3649	.3333	.3426	.3084
.300	.3132	.2645	.2750	.2864	.2363
.520	.1533	.1566	.1822	.2196	.1083
.750	-.3103	-.3279	-.3106	-.3237	-.3634
.900		-.3213	-.2973	-.3171	-.3638

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV22)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.942 BETA (1) =   .012

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6710	.5799	.5022	.4988	.4947
.025	-.0318	.0833	-.0680	-.1093	-.1147
.050	.2020	.0280	-.0577	-.0589	-.0694
.150	.2194	.1535	.0869	.1041	.0968
.300	.1357	.0814	.0558	.0664	.0558
.520	-.0032	-.0099	.0012	.0390	-.0057
.750	-.3076	-.4161	-.3904	-.3852	-.4042
.900		-.4011	-.3888	-.3834	-.3956

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV23)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.047 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                               X/CV
                                                .000   .5304   .3992   .4261   .4687   .4250
                                                .025   -.0608   -.1536   -.4051   -.4724   -.5291
                                                .050   .1333   -.2261   -.3523   -.3631   -.4495
                                                .150   -.0254   -.1315   -.1582   -.1708   -.1834
                                                .300   -.1714   -.1750   -.1849   -.2192   -.2460
                                                .520   -.2945   -.3001   -.3277   -.2802   -.3875
                                                .750   -.3137   -.4009   -.4896   -.3582   -.2643
                                                .900   -.2816   -.3577   -.3502   -.2162

ALPHA (2) = -.276 BETA (1) = -4.003   Z/BV   .158   .316   .600   .840   .925
                                               X/CV
                                                .000   .3855   .3200   .3204   .2481   .2144
                                                .025   -.4548   -.4555   -.9059 -1.0256   .0000
                                                .050   -.4997   -.7361   -.9033 -1.0300   .0000
                                                .150   -.2504   -.6009   -.8870   -.8947   -.9932
                                                .300   -.3761   -.4640   -.7887   -.8194   -.7867
                                                .520   -.5423   -.4373   -.6320   -.7315   -.5280
                                                .750   -.3477   -.3635   -.5168   -.4167   -.3153
                                                .900   -.3364   -.3505   -.3743   -.2423

ALPHA (2) = -.237 BETA (2) =   .009   Z/BV   .158   .316   .600   .840   .925
                                               X/CV
                                                .000   .5059   .3657   .3211   .4050   .3955
                                                .025   -.1064   -.1611   -.4422   -.4348   -.4616
                                                .050   .0971   -.2616   -.3967   -.3388   -.3634
                                                .150   -.0587   -.1720   -.2034   -.1514   -.1600
                                                .300   -.2035   -.2478   -.2174   -.2012   -.2215
                                                .520   -.3087   -.3156   -.3443   -.2648   -.3731
                                                .750   -.2443   -.3780   -.4230   -.3285   -.2157
                                                .900   -.2873   -.3200   -.2993   -.1461

ALPHA (2) = -.195 BETA (3) = 4.028   Z/BV   .158   .316   .600   .840   .925
                                               X/CV
                                                .000   .3977   .2353   .1382   .1952   .1639
                                                .025   .2984   .2010   .1119   .1300   .1446
                                                .050   .2850   .1754   .1212   .1144   .0603
                                                .150   .1428   .1044   .0603   .0457   -.0244
                                                .300   .0210   -.0069   -.0375   -.0710   -.1505
                                                .520   -.1378   -.1969   -.2366   -.2017   -.3746
                                                .750   -.2582   -.3404   -.5464   -.8371   -.6542
                                                .900   -.2470   -.2844   -.4053   -.3171

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV23)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.855 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4690	.2920	.2324	.3576	.3118
.025	-.1941	-.2349	-.4986	-.4102	-.4533
.050	.0087	-.3398	-.4615	-.2852	-.3649
.150	-.1286	-.2505	-.2130	-.1608	-.1946
.300	-.2788	-.3219	-.1622	-.2264	-.2572
.520	-.3727	-.3299	-.3180	-.3004	-.4166
.750	-.2548	-.2721	-.4465	-.3495	-.2227
.900		-.2725	-.2434	-.3222	-.1462

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV24)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT			ELV-IB = .000	ELV-OB = .000
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT			RUDDER = .000	MACH = 1.100
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT			GIMBAL = 1.000	
SCALE = .0200					

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) = .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7215	.5958	.5574	.5876	.5600
.025	.1758	.0925	-.1583	-.1996	-.2440
.050	.3599	.0273	-.1326	-.1351	-.1683
.150	.2349	.1238	.0549	.0575	.0189
.300	.1006	.0452	.0336	.0032	-.0229
.520	-.0578	-.0642	-.0803	-.0556	-.1419
.750	-.3784	-.6822	-.6919	-.7088	-.7185
.900		-.4188	-.6784	-.6997	-.6592

ALPHA (2) = -.279 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5909	.5168	.4710	.4152	.3932
.025	-.1549	-.1863	-.5694	-.7417	-.8927
.050	-.1859	-.3984	-.5633	-.7373	-.8576
.150	-.0603	-.3337	-.5473	-.6021	-.7598
.300	-.0778	-.2235	-.4678	-.4954	-.4937
.520	-.2616	-.2702	-.3753	-.4529	-.3811
.750	-.4358	-.6732	-.7268	-.7483	-.7912
.900		-.4868	-.7564	-.7278	-.7236

ALPHA (2) = -.246 BETA (2) = .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6923	.5596	.4953	.5185	.4959
.025	.1024	.0769	-.1713	-.2133	-.2416
.050	.3112	-.0017	-.1418	-.1454	-.1748
.150	.2013	.0932	.0226	.0300	-.0133
.300	.0736	.0152	.0001	-.0205	-.0494
.520	-.0833	-.0948	-.1081	-.0811	-.1682
.750	-.3774	-.6867	-.6948	-.7108	-.7280
.900		-.4219	-.6791	-.7019	-.6752

ALPHA (2) = -.273 BETA (3) = 4.025

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5827	.4313	.3226	.3672	.3435
.025	.4988	.3827	.2567	.2565	.2710
.050	.4904	.3518	.2758	.2527	.2085
.150	.3488	.2700	.2199	.2038	.1364
.300	.2032	.1655	.1410	.1100	.0326
.520	.0362	.0012	-.0190	.0037	-.1485
.750	-.4054	-.6122	-.6448	-.6817	-.7300
.900		-.4265	-.6016	-.6557	-.7141

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV24)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.804 BETA (1) = -.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6690	.4930	.4011	.4196	.4007
.025	.0563	.0340	-.2255	-.2516	-.2721
.050	.2513	-.0804	-.2058	-.1853	-.1981
.150	.1443	.0285	-.0480	-.0290	-.0639
.300	.0066	-.0518	-.0628	-.0703	-.1002
.520	-.1495	-.1523	-.1560	-.1271	-.2134
.750	-.3916	-.6989	-.7110	-.7238	-.7463
.900		-.4344	-.6955	-.7147	-.7026

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV25)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -3.975 BETA (1) =   .003   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .7773   .6637   .6166   .6400   .6254
                                            .025   .2078   .1787 -.0611 -.1061 -.1172
                                            .050   .3550   .1003 -.0453 -.0494 -.0642
                                            .150   .3260   .2041   .1252   .1406   .1093
                                            .300   .1878   .1226   .1025   .1075   .0856
                                            .520   .0195   .0219   .0315   .0610 -.0035
                                            .750   -.3252 -.5000 -.4869 -.4943 -.5090
                                            .900   -.3689 -.4804 -.4950 -.4713

ALPHA (2) = -.255 BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .6401   .5785   .5425   .4984   .4837
                                            .025   -.1043 -.0541 -.4201 -.6597 -.6651
                                            .050   -.1196 -.2540 -.4184 -.6162 -.6613
                                            .150   -.1144 -.2247 -.3892 -.5091 -.5884
                                            .300   .0651 -.1285 -.2975 -.3088 -.4552
                                            .520   -.1355 -.1806 -.2467 -.2547 -.2081
                                            .750   -.3696 -.5650 -.5391 -.5693 -.5715
                                            .900   -.4129 -.5631 -.5468 -.5522

ALPHA (2) = -.285 BETA (2) =   .012   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .7139   .6188   .5439   .5647   .5493
                                            .025   .1178   .1507 -.0932 -.1331 -.1416
                                            .050   .2921   .0579 -.0764 -.0841 -.0877
                                            .150   .2751   .1685   .0807   .0976   .0739
                                            .300   .1521   .0796   .0557   .0656   .0451
                                            .520   -.0103 -.0193 -.0075   .0235 -.0377
                                            .750   -.3255 -.5123 -.4957 -.5006 -.5214
                                            .900   -.3771 -.4914 -.5006 -.4917

ALPHA (2) = -.189 BETA (3) = 4.031   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .6288   .5014   .4216   .4591   .4425
                                            .025   .5073   .4325   .2978   .3123   .3442
                                            .050   .5134   .3993   .3297   .3217   .3007
                                            .150   .3977   .3143   .2831   .2856   .2328
                                            .300   .2612   .2189   .2171   .2135   .1491
                                            .520   .0951   .0941   .0962   .1227 -.0052
                                            .750   -.3393 -.4568 -.4566 -.4809 -.5236
                                            .900   -.3550 -.4296 -.4686 -.5191

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV25)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 4.005 BETA (1) =   .003

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7013	.5444	.4533	.4644	.4531
.025	.0303	.0970	-.1334	-.1712	-.1782
.050	.2710	-.0131	-.1207	-.1166	-.1160
.150	.2028	.0978	.0226	.0460	.0275
.300	.0834	.0222	.0017	.0068	-.0109
.520	-.0709	-.0731	-.0639	-.0300	-.0884
.750	-.3459	-.5459	-.5252	-.5282	-.5513
.900		-.3871	-.5201	-.5236	-.5275

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV26)   (19 OCT 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

ELV-IB =   .000   ELV-OB =   .000
RUDDER =   .000   MACH   =   1.400
GIMBAL =   1.000

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -3.909 BETA (1) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7798	.7218	.6543	.6775	.6607
.025	.2203	.2544	.0217	-.0411	-.0550
.050	.3110	.1646	.0196	.0097	.0071
.150	.3846	.2581	.1935	.1932	.1695
.300	.2488	.1867	.1612	.1709	.1544
.520	.0860	.0824	.0970	.1334	.0842
.750	-.2933	-.3668	-.3456	-.3446	-.3639
.900		-.3682	-.3446	-.3484	-.3429

ALPHA (2) = -.243 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6736	.6130	.5875	.5499	.5356
.025	-.1128	.0410	-.3276	-.4972	-.4863
.050	-.1201	-.1380	-.3258	-.4724	-.5220
.150	-.0948	-.1403	-.2776	-.4051	-.4194
.300	.1668	-.0807	-.1837	-.2579	-.3326
.520	-.0399	-.0773	-.1554	-.1462	-.1356
.750	-.3342	-.4188	-.4162	-.4377	-.4142
.900		-.4197	-.4264	-.4167	-.4180

ALPHA (2) = -.237 BETA (2) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7033	.6631	.5872	.5914	.5905
.025	.1050	.2122	-.0197	-.0715	-.0764
.050	.1839	.0985	-.0066	-.0112	-.0215
.150	.3224	.2151	.1446	.1550	.1380
.300	.2043	.1444	.1154	.1256	.1093
.520	.0515	.0485	.0534	.0942	.0422
.750	-.3001	-.3824	-.3644	-.3621	-.3846
.900		-.3890	-.3633	-.3641	-.3666

ALPHA (2) = -.234 BETA (3) = 4.031

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6693	.5345	.4803	.5134	.5094
.025	.5178	.4778	.3404	.3495	.3931
.050	.5349	.4424	.3766	.3701	.3672
.150	.4287	.3696	.3272	.3387	.3047
.300	.3059	.2602	.2710	.2851	.2339
.520	.1491	.1554	.1761	.2170	.1040
.750	-.3180	-.3335	-.3161	-.3272	-.3692
.900		-.3262	-.3031	-.3228	-.3682

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV26)

SECTION (1) VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 4.047 BETA (1) = .006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6635	.5777	.4950	.4899	.4894
.025	-.0241	.1495	-.0720	-.1163	-.1226
.050	.2022	.0244	-.0559	-.0606	-.0723
.150	.2199	.1514	.0857	.0981	.0915
.300	.1351	.0777	.0557	.0614	.0552
.520	-.0066	-.0132	-.0026	.0367	-.0082
.750	-.3030	-.4240	-.3958	-.3897	-.4109
.900		-.3957	-.3974	-.3889	-.4032

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV27)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-CB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL = 1.000
SCALE =   .0200

    SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.125 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                             .000   .5287   .3905   .4081   .4485   .4078
                                             .025   -.0696   -.1600   -.4325   -.5005   -.5572
                                             .050   .1325   -.2202   -.3900   -.4180   -.4721
                                             .150   -.0255   -.1291   -.1887   -.1993   -.2236
                                             .300   -.1701   -.1899   -.2175   -.2655   -.2838
                                             .520   -.3067   -.3478   -.3629   -.3219   -.4271
                                             .750   -.5165   -.6753 -1.1243   -.8713   -.5580
                                             .900   -.5553   -.7132   -.6165   -.4499

ALPHA (2) = -.396 BETA (1) = -4.003   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                             .000   .3822   .3195   .3152   .2454   .2159
                                             .025   -.4645   -.5384   -.9231 -1.0614   .0000
                                             .050   -.5090   -.7459   -.9192 -1.0602   .0000
                                             .150   -.2586   -.6083   -.9015   -.9175 -1.0224
                                             .300   -.3794   -.4798   -.7961   -.8370   -.8257
                                             .520   -.5541   -.5387   -.6557   -.8055   -.7246
                                             .750   -.5901   -.6901 -1.1270   -.6773   -.6023
                                             .900   -.6243   -.6615   -.4964   -.4893

ALPHA (2) = -.408 BETA (2) =   .009   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                             .000   .4923   .3438   .3220   .3924   .3625
                                             .025   -.1191   -.2253   -.4557   -.4922   -.5353
                                             .050   .0827   -.2817   -.4096   -.3927   -.4633
                                             .150   -.0746   -.1879   -.2309   -.2063   -.2336
                                             .300   -.2219   -.2577   -.2494   -.2654   -.2869
                                             .520   -.3572   -.3816   -.3858   -.3279   -.4318
                                             .750   -.4874   -.6605 -1.1080   -.5660   -.4021
                                             .900   -.5535   -.5357   -.5225   -.3466

ALPHA (2) = -.336 BETA (3) = 4.025   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                             .000   .3806   .2216   .1305   .1930   .1504
                                             .025   .2764   .1739   .0946   .1013   .0922
                                             .050   .2686   .1540   .1068   .0826   .0093
                                             .150   .1124   .0750   .0403   .0158   -.0718
                                             .300   -.0211   -.0225   -.0600   -.1086   -.2025
                                             .520   -.1881   -.2272   -.2679   -.2430   -.4308
                                             .750   -.4968   -.6201 -1.0290 -1.0836   -.8178
                                             .900   -.4977   -.7444   -.6731   -.5760

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV27)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.792 BETA (1) = -.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4652	.2826	.2164	.3258	.3113
.025	-.1916	-.2909	-.5249	-.4771	-.5056
.050	.0113	-.3343	-.4902	-.3743	-.4086
.150	-.1298	-.2497	-.2997	-.2062	-.2263
.300	-.2816	-.3329	-.3045	-.2678	-.2885
.520	-.4234	-.4369	-.4100	-.3310	-.4493
.750	-.4656	-.6023	-.7205	-.4941	-.3497
.900		-.5320	-.4329	-.4525	-.2784

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV28)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

                                                                ELV-IB =   .000   ELV-OB =   .000
SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   RUDDER =   .000   MACH   =   1.100
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   GIMBAL =   1.000
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7220	.5937	.5584	.5876	.5614
.025	.1771	.0689	-.1636	-.2048	-.2454
.050	.3600	.0294	-.1329	-.1356	-.1717
.150	.2335	.1225	.0557	.0557	.0167
.300	.0984	.0394	.0336	.0006	-.0251
.520	-.0595	-.0666	-.0836	-.0567	-.1421
.750	-.4730	-.6909	-.6958	-.7116	-.7218
.900		-.5137	-.6818	-.7029	-.6605

ALPHA (2) = -.465 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5953	.5221	.4749	.4244	.3995
.025	-.1514	-.2651	-.5646	-.7415	-.8905
.050	-.1837	-.3946	-.5612	-.7321	-.8555
.150	-.0565	-.3313	-.5371	-.5999	-.7554
.300	-.0729	-.2161	-.4621	-.4875	-.4825
.520	-.2568	-.2676	-.3689	-.4512	-.3711
.750	-.5503	-.7590	-.7222	-.7431	-.7908
.900		-.6150	-.7524	-.7232	-.7215

ALPHA (2) = -.447 BETA (2) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6963	.5658	.5006	.5232	.5031
.025	.1070	.0269	-.1711	-.2050	-.2445
.050	.3162	-.0023	-.1377	-.1348	-.1624
.150	.2096	.0974	.0282	.0377	-.0040
.300	.0819	.0178	.0073	-.0141	-.0433
.520	-.0766	-.0897	-.1020	-.0745	-.1617
.750	-.4743	-.6883	-.6899	-.7050	-.7205
.900		-.5159	-.6742	-.6958	-.6681

ALPHA (2) = -.405 BETA (3) = 4.031

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5872	.4338	.3296	.3774	.3508
.025	.5029	.3824	.2617	.2619	.2732
.050	.4936	.3596	.2837	.2563	.2121
.150	.3535	.2739	.2250	.2089	.1410
.300	.2039	.1702	.1430	.1154	.0370
.520	.0401	.0054	-.0146	.0070	-.1448
.750	-.4666	-.6193	-.6423	-.6802	-.7282
.900		-.4635	-.6002	-.6542	-.7126

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV28)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.819 BETA (1) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6729	.4964	.4041	.4315	.4113
.025	.0584	-.0388	-.2190	-.2491	-.2676
.050	.2562	-.0732	-.1935	-.1879	-.1980
.150	.1487	.0334	-.0406	-.0202	-.0536
.300	.0112	-.0480	-.0596	-.0624	-.0925
.520	-.1430	-.1487	-.1502	-.1186	-.2050
.750	-.4979	-.7125	-.7041	-.7171	-.7396
.900		-.5433	-.6890	-.7080	-.6960

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV29)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) =   .006   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                              .000   .7779   .6627   .6207   .6453   .6289
                                              .025   .2139   .1580   -.0593   -.1017   -.1104
                                              .050   .3690   .1031   -.0446   -.0481   -.0611
                                              .150   .3291   .2053   .1307   .1450   .1080
                                              .300   .1909   .1261   .1085   .1134   .0898
                                              .520   .0214   .0214   .0357   .0662   .0013
                                              .750   -.3613   -.4950   -.4806   -.4882   -.5028
                                              .900   -.4130   -.4744   -.4890   -.4657

ALPHA (2) = -.375 BETA (1) = -3.997   Z/BV   .158   .316   .500   .840   .925
                                             X/CV
                                              .000   .6433   .5842   .5462   .5041   .4898
                                              .025   -.0961   -.1121   -.4162   -.6552   -.6569
                                              .050   -.1167   -.2454   -.4135   -.6111   -.6532
                                              .150   -.1097   -.2170   -.3835   -.5078   -.5784
                                              .300   .0709   -.1238   -.2902   -.3009   -.4501
                                              .520   -.1267   -.1537   -.2434   -.2477   -.2011
                                              .750   -.4215   -.5600   -.5325   -.5603   -.5621
                                              .900   -.4905   -.5570   -.5375   -.5429

ALPHA (2) = -.408 BETA (2) =   .012   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                              .000   .7166   .6166   .5489   .5646   .5524
                                              .025   .1240   .1007   -.0951   -.1322   -.1417
                                              .050   .2945   .0534   -.0813   -.0770   -.0906
                                              .150   .2752   .1645   .0790   .0996   .0730
                                              .300   .1518   .0799   .0571   .0647   .0477
                                              .520   -.0130   -.0192   -.0108   .0257   -.0358
                                              .750   -.3690   -.5108   -.4945   -.4971   -.5175
                                              .900   -.4368   -.4893   -.4974   -.4885

ALPHA (2) = -.381 BETA (3) = 4.031   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                              .000   .6371   .5125   .4279   .4684   .4519
                                              .025   .5066   .4267   .2973   .3147   .3478
                                              .050   .5171   .3996   .3334   .3206   .3065
                                              .150   .4008   .3200   .2889   .2899   .2377
                                              .300   .2638   .2210   .2244   .2218   .1540
                                              .520   .0953   .0966   .1012   .1292   .0010
                                              .750   -.3764   -.4514   -.4501   -.4747   -.5183
                                              .900   -.3853   -.4230   -.4622   -.5142

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV29)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.843 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7065	.5481	.4572	.4684	.4583
.025	.0327	.0392	-.1280	-.1677	-.1752
.050	.2711	-.0120	-.1148	-.1172	-.1159
.150	.2069	.0977	.0286	.0503	.0289
.300	.0869	.0238	.0053	.0148	-.0060
.520	-.0689	-.0703	-.0606	-.0256	-.0859
.750	-.3886	-.5435	-.5213	-.5257	-.5486
.900		-.4392	-.5177	-.5220	-.5247

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV30)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1) VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.224 BETA (1) =   .006

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7789	.7223	.6558	.6779	.6669
.025	.2185	.2388	.0131	-.0439	-.0529
.050	.3040	.1647	.0252	.0128	.0021
.150	.3838	.2575	.1898	.1971	.1643
.300	.2476	.1863	.1572	.1676	.1500
.520	.0847	.0843	.0979	.1318	.0812
.750	-.2882	-.3707	-.3485	-.3486	-.3683
.900		-.3665	-.3491	-.3532	-.3467

ALPHA (2) = -.444 BETA (1) = -3.997

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6798	.6117	.5912	.5486	.5384
.025	-.1133	-.0050	-.3284	-.4992	-.4873
.050	-.1247	-.1428	-.3274	-.4744	-.5228
.150	-.0994	-.1468	-.2806	-.4055	-.4189
.300	.1633	-.0828	-.1830	-.2623	-.3337
.520	-.0411	-.0750	-.1591	-.1468	-.1412
.750	-.3407	-.4197	-.4171	-.4367	-.4163
.900		-.4260	-.4277	-.4176	-.4152

ALPHA (2) = -.405 BETA (2) =   .016

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7075	.6621	.5901	.5974	.5984
.025	.1219	.1786	-.0165	-.0660	-.0757
.050	.1998	.0998	-.0055	-.0205	-.0248
.150	.3283	.2169	.1515	.1570	.1422
.300	.2030	.1448	.1204	.1239	.1146
.520	.0516	.0462	.0561	.0948	.0467
.750	-.2972	-.3803	-.3614	-.3597	-.3813
.900		-.3874	-.3614	-.3609	-.3662

ALPHA (2) = -.360 BETA (3) = 4.031

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6765	.5456	.4885	.5229	.5184
.025	.5192	.4743	.3470	.3585	.4013
.050	.5394	.4447	.3784	.3743	.3725
.150	.4380	.3689	.3319	.3483	.3124
.300	.3085	.2639	.2791	.2907	.2413
.520	.1563	.1562	.1833	.2233	.1105
.750	-.2999	-.3292	-.3108	-.3228	-.3633
.900		-.3185	-.2968	-.3177	-.3649

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV30)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.819 BETA (1) =   .009

X/CV \ Z/BV	.158	.316	.600	.840	.925
.000	.6695	.5839	.5004	.4972	.4957
.025	-.0369	.1012	-.0723	-.1139	-.1245
.050	.1996	.0247	-.0617	-.0621	-.0790
.150	.2194	.1537	.0874	.1028	.0960
.300	.1356	.0812	.0596	.0642	.0523
.520	-.0022	-.0123	.0007	.0381	-.0067
.750	-.3008	-.4192	-.3913	-.3881	-.4078
.900		-.3989	-.3914	-.3863	-.3993

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV31)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.020 BETA (1) = .006   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .5202   .3717   .4280   .4588   .4415
                                            .025   -.0644 -.2742 -.4063 -.4607 -.4985
                                            .050   .1294 -.2086 -.3298 -.3363 -.4029
                                            .150   -.0230 -.1292 -.1523 -.1575 -.1728
                                            .300   -.1643 -.1698 -.1685 -.2042 -.2354
                                            .520   -.2913 -.2987 -.3187 -.2772 -.3788
                                            .750   -.3053 -.3755 -.4889 -.3084 -.2316
                                            .900   -.2650 -.3327 -.2616 -.1698

ALPHA (2) = -.288 BETA (1) = -4.003   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .3825   .3031   .3062   .2446   .2103
                                            .025   -.4491 -.7175 -.9026 -1.0089 -1.0907
                                            .050   -.4956 -.7365 -.9024 -1.0079 -1.0714
                                            .150   -.2561 -.6273 -.8900 -.8892 -1.0663
                                            .300   -.3679 -.4612 -.7880 -.7958 -.8902
                                            .520   -.5348 -.4412 -.6064 -.6431 -.5471
                                            .750   -.3423 -.3630 -.4685 -.3560 -.2514
                                            .900   -.3364 -.3200 -.3194 -.1828

ALPHA (2) = -.279 BETA (2) = .009   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .4963   .3435   .3301   .4050   .3945
                                            .025   -.1110 -.3079 -.4388 -.4380 -.4604
                                            .050   .0940 -.2568 -.3741 -.3057 -.3653
                                            .150   -.0637 -.1637 -.1916 -.1452 -.1612
                                            .300   -.2072 -.2498 -.2006 -.2014 -.2228
                                            .520   -.2950 -.3102 -.3227 -.2678 -.3697
                                            .750   -.2630 -.3663 -.4335 -.2711 -.1970
                                            .900   -.2649 -.2676 -.2344 -.1283

ALPHA (2) = -.264 BETA (3) = 4.031   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .3832   .2151   .1212   .1569   .1502
                                            .025   .2840   .1845   .1221   .1441   .1351
                                            .050   .2756   .1674   .1310   .1184   .0524
                                            .150   .1265   .0959   .0687   .0479 -.0341
                                            .300   .0067 -.0019 -.0284 -.0738 -.1621
                                            .520   -.1565 -.2033 -.2300 -.2088 -.3843
                                            .750   -.2677 -.3311 -.5009 -.7914 -.6811
                                            .900   -.2332 -.2581 -.4086 -.3333

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV31)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.978 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4621	.2686	.2731	.3339	.3109
.025	-.1965	-.3792	-.4001	-.4221	-.4497
.050	.0083	-.3297	-.3480	-.3030	-.3760
.150	-.1305	-.2483	-.1581	-.1632	-.1952
.300	-.2777	-.3165	-.1702	-.2292	-.2545
.520	-.3511	-.2605	-.3266	-.2963	-.4077
.750	-.2508	-.2774	-.4459	-.2884	-.1952
.900		-.2340	-.2395	-.2568	-.1187

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV32)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .7228   .5833   .5575   .5703   .5675
                                            .025   .1821   .0034 -.1503 -.1905 -.2365
                                            .050   .3631   .0461 -.1106 -.1133 -.1619
                                            .150   .2422   .1311   .0640   .0674   .0319
                                            .300   .1103   .0468   .0432   .0152 -.0114
                                            .520   -.0519 -.0579 -.0703 -.0441 -.1293
                                            .750   -.3466 -.6660 -.6810 -.6970 -.7074
                                            .900   -.3646 -.6659 -.6883 -.6448

ALPHA (2) = -.255 BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .6025   .5170   .4847   .4379   .4146
                                            .025   -.1297 -.3546 -.5278 -.6848 -.8535
                                            .050   -.1651 -.3714 -.5281 -.6730 -.8213
                                            .150   -.0569 -.3140 -.5133 -.5509 -.6968
                                            .300   -.0484 -.1881 -.4245 -.4595 -.4543
                                            .520   -.2336 -.2406 -.3335 -.4295 -.3441
                                            .750   -.3878 -.5856 -.6909 -.7127 -.7584
                                            .900   -.4237 -.7118 -.6881 -.6824

ALPHA (2) = -.213 BETA (2) =   .009   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .7062   .5656   .5029   .5033   .5115
                                            .025   .1085 -.0127 -.1613 -.1932 -.2172
                                            .050   .3256   .0384 -.1263 -.1226 -.1484
                                            .150   .2326   .1165   .0378   .0486   .0136
                                            .300   .1044   .0341   .0183   .0079 -.0197
                                            .520   -.0570 -.0732 -.0864 -.0545 -.1354
                                            .750   -.3261 -.6444 -.6635 -.6745 -.6896
                                            .900   -.3583 -.6474 -.6639 -.6366

ALPHA (2) = -.219 BETA (3) = 4.028   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .5966   .4370   .3372   .3662   .3670
                                            .025   .5089   .3862   .2725   .2846   .2961
                                            .050   .5031   .3654   .2955   .2791   .2360
                                            .150   .3624   .2860   .2395   .2296   .1635
                                            .300   .2180   .1811   .1633   .1376   .0602
                                            .520   .0529   .0227   .0048   .0304 -.1191
                                            .750   -.3710 -.5853 -.6140 -.6490 -.6962
                                            .900   -.3976 -.5701 -.6239 -.6792

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV32)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.981 BETA (1) = .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6923	.5013	.4154	.4105	.4258
.025	.0710	-.0620	-.1984	-.2281	-.2457
.050	.2719	-.0475	-.1773	-.1671	-.1720
.150	.1736	.0600	-.0212	-.0086	-.0351
.300	.0399	-.0252	-.0389	-.0451	-.0683
.520	-.1179	-.1251	-.1279	-.0976	-.1778
.750	-.3393	-.6518	-.6734	-.6827	-.7041
.900		-.3866	-.6569	-.6725	-.6614

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV33)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.044 BETA (1) =   .003   Z/BV   .158   .316   .600   .840   .925
                                              X/CV
                                               .000   .7748   .6501   .6131   .6171   .6291
                                               .025   .2049   .0701   -.0598   -.1006   -.1193
                                               .050   .3676   .0975   -.0452   -.0500   -.0658
                                               .150   .3282   .2022   .1293   .1456   .1116
                                               .300   .1903   .1241   .1054   .1122   .0923
                                               .520   .0203   .0238   .0331   .0687   .0034
                                               .750   -.2985   -.4926   -.4788   -.4837   -.4994
                                               .900   -.3185   -.4725   -.4858   -.4623

ALPHA (2) = -.198 BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                              X/CV
                                               .000   .6341   .5641   .5375   .4954   .4801
                                               .025   -.0927   -.2321   -.4103   -.6580   -.6562
                                               .050   -.1102   -.2465   -.4101   -.6117   -.6545
                                               .150   -.1186   -.2212   -.3803   -.5171   -.5798
                                               .300   .0743   -.1192   -.2955   -.3053   -.4559
                                               .520   -.1277   -.1535   -.2456   -.2501   -.2051
                                               .750   -.3458   -.5556   -.5349   -.5650   -.5612
                                               .900   -.3656   -.5543   -.5377   -.5440

ALPHA (2) = -.162 BETA (2) =   .009   Z/BV   .158   .316   .600   .840   .925
                                              X/CV
                                               .000   .7070   .6004   .5417   .5362   .5520
                                               .025   .1173   .0257   -.0944   -.1335   -.1447
                                               .050   .2881   .0479   -.0788   -.0755   -.0896
                                               .150   .2719   .1623   .0820   .0988   .0710
                                               .300   .1503   .0785   .0567   .0668   .0471
                                               .520   -.0154   -.0184   -.0097   .0256   -.0364
                                               .750   -.3066   -.5093   -.4936   -.4962   -.5179
                                               .900   -.3415   -.4894   -.4968   -.4886

ALPHA (2) = -.210 BETA (3) = 4.031   Z/BV   .158   .316   .600   .840   .925
                                              X/CV
                                               .000   .6303   .4961   .4178   .4375   .4475
                                               .025   .5040   .4113   .2934   .3182   .3460
                                               .050   .5147   .3961   .3258   .3184   .3016
                                               .150   .3971   .3144   .2849   .2900   .2371
                                               .300   .2604   .2169   .2225   .2196   .1523
                                               .520   .0980   .0940   .1029   .1293   .0004
                                               .750   -.3289   -.4548   -.4510   -.4735   -.5171
                                               .900   -.3463   -.4244   -.4602   -.5124

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV33)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.846 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6970	.5294	.4526	.4403	.4620
.025	.0355	-.0244	-.1331	-.1700	-.1681
.050	.2700	-.0138	-.1187	-.1111	-.1108
.150	.2048	.0997	.0267	.0523	.0294
.300	.0861	.0257	.0052	.0145	-.0035
.520	-.0687	-.0705	-.0586	-.0231	-.0830
.750	-.3214	-.5406	-.5187	-.5211	-.5447
.900		-.3565	-.5143	-.5178	-.5216

ARC11-014IA19 QTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV34)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7760	.7070	.6516	.6528	.6667
.025	.2196	.1456	.0127	-.0434	-.0503
.050	.3103	.1591	.0278	.0129	.0072
.150	.3863	.2606	.1938	.2005	.1612
.300	.2512	.1868	.1618	.1731	.1571
.520	.0899	.0824	.0993	.1311	.0870
.750	-.2794	-.3657	-.3450	-.3426	-.3619
.900		-.3498	-.3451	-.3469	-.3407

ALPHA (2) = -.231 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6684	.5917	.5804	.5414	.5297
.025	-.1152	-.1362	-.3239	-.4985	-.4885
.050	-.1222	-.1437	-.3249	-.4764	-.5210
.150	-.0932	-.1452	-.2757	-.4057	-.4188
.300	.1593	-.0832	-.1874	-.2494	-.3324
.520	-.0418	-.0795	-.1575	-.1510	-.1397
.750	-.3162	-.4207	-.4179	-.4396	-.4159
.900		-.3312	-.4269	-.4169	-.4198

ALPHA (2) = -.231 BETA (2) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7024	.6485	.5824	.5720	.5951
.025	.1039	.0943	-.0193	-.0665	-.0752
.050	.1831	.0990	-.0053	-.0137	-.0209
.150	.3221	.2143	.1475	.1561	.1341
.300	.2035	.1425	.1173	.1285	.1115
.520	.0521	.0464	.0552	.0945	.0468
.750	-.2884	-.3819	-.3631	-.3601	-.3814
.900		-.3670	-.3635	-.3604	-.3664

ALPHA (2) = -.210 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6637	.5324	.4750	.4849	.5074
.025	.5099	.4558	.3415	.3590	.3987
.050	.5273	.4358	.3720	.3658	.3655
.150	.4276	.3657	.3247	.3391	.3043
.300	.3053	.2583	.2718	.2832	.2328
.520	.1480	.1514	.1758	.2157	.1037
.750	-.3135	-.3345	-.3168	-.3291	-.3680
.900		-.3270	-.3033	-.3233	-.3699

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF VERTICAL   (REUV34)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.930 BETA (1) = .003	Z/BV X/CV	.158	.316	.600	.840	.925
	.000	.6595	.5587	.4919	.4719	.4933
	.025	-.0284	.0228	-.0715	-.1149	-.1210
	.050	.1989	.0222	-.0548	-.0642	-.0729
	.150	.2180	.1533	.0853	.1004	.0934
	.300	.1320	.0774	.0555	.0648	.0516
	.520	-.0061	-.0140	-.0009	.0341	-.0133
	.750	-.2905	-.4215	-.3954	-.3906	-.4102
	.900		-.3539	-.3956	-.3888	-.4013

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV35)   (19 OCT 74)

	REFERENCE DATA		PARAMETRIC DATA			

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.308 BETA (1) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5294	.3785	.4148	.4387	.4169
.025	-.0577	-.2648	-.4297	-.4889	-.5517
.050	.1413	-.2017	-.3595	-.3974	-.4574
.150	-.0172	-.1290	-.1801	-.1894	-.2065
.300	-.1624	-.1829	-.2084	-.2544	-.2685
.520	-.3005	-.3402	-.3536	-.3129	-.4089
.750	-.4464	-.6059	-1.1154	-.4800	-.3230
.900		-.4879	-.5260	-.4260	-.2965

ALPHA (2) = -.390 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3819	.3018	.3045	.2474	.2163
.025	-.4519	-.7197	-.9062	-1.0426	-1.2421
.050	-.4969	-.7397	-.9127	-1.0472	-1.2346
.150	-.2646	-.6157	-.9009	-.9075	-1.0066
.300	-.3741	-.4662	-.7917	-.8433	-.8095
.520	-.5481	-.5330	-.6418	-.7949	-.5992
.750	-.5735	-.6827	-.9864	-.4818	-.4316
.900		-.6065	-.5409	-.4100	-.3775

ALPHA (2) = -.384 BETA (2) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4919	.3364	.3134	.3517	.3710
.025	-.1119	-.3176	-.4636	-.5010	-.5246
.050	.0873	-.2723	-.4056	-.3991	-.4273
.150	-.0694	-.1769	-.2294	-.2118	-.2026
.300	-.2124	-.2585	-.2507	-.2657	-.2581
.520	-.3482	-.3748	-.3900	-.3148	-.4052
.750	-.4309	-.6081	-1.0372	-.3804	-.2693
.900		-.5209	-.5083	-.3497	-.2144

ALPHA (2) = -.345 BETA (3) = 4.025

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3788	.2107	.1184	.1575	.1464
.025	.2705	.1620	.0911	.0940	.0855
.050	.2626	.1453	.1016	.0809	.0169
.150	.1131	.0713	.0284	.0169	-.0684
.300	-.0234	-.0292	-.0655	-.1135	-.2009
.520	-.1912	-.2276	-.2714	-.2448	-.4290
.750	-.4264	-.5730	-1.0283	-.8705	-.6085
.900		-.4351	-.5537	-.6343	-.4609

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV35)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.903 BETA (1) =   .006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4538	.2573	.2107	.3120	.3066
.025	-.2066	-.4037	-.5216	-.4782	-.5018
.050	-.0016	-.3389	-.4603	-.3657	-.4199
.150	-.1448	-.2627	-.2899	-.1955	-.2275
.300	-.2951	-.3311	-.2925	-.2640	-.2892
.520	-.4360	-.4200	-.3678	-.3346	-.4524
.750	-.4420	-.5434	-.6024	-.3882	-.2710
.900		-.4267	-.3500	-.3552	-.2152

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV36)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.008 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7178	.5813	.5495	.5608	.5617
.025	.1765	-.0029	-.1605	-.2022	-.2433
.050	.3641	.0380	-.1267	-.1334	-.1706
.150	.2357	.1237	.0514	.0562	.0244
.300	.1028	.0374	.0325	-.0007	-.0182
.520	-.0584	-.0687	-.0834	-.0544	-.1381
.750	-.4499	-.6877	-.6935	-.7075	-.7166
.900		-.4462	-.6788	-.6989	-.6548

ALPHA (2) = -.342 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5911	.5080	.4738	.4229	.4024
.025	-.1390	-.3672	-.5480	-.7066	-.8726
.050	-.1774	-.3866	-.5461	-.6970	-.8392
.150	-.0484	-.3279	-.5407	-.5744	-.6999
.300	-.0681	-.2016	-.4478	-.4815	-.4732
.520	-.2505	-.2599	-.3527	-.4559	-.3748
.750	-.4909	-.7490	-.7166	-.7367	-.7820
.900		-.5094	-.7400	-.7125	-.7088

ALPHA (2) = -.318 BETA (2) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7041	.5653	.5053	.5139	.5171
.025	.1240	-.0129	-.1555	-.1865	-.2184
.050	.3336	.0274	-.1259	-.1128	-.1488
.150	.2232	.1148	.0423	.0569	.0146
.300	.0982	.0320	.0229	.0065	-.0240
.520	-.0570	-.0722	-.0834	-.0567	-.1411
.750	-.4297	-.6641	-.6656	-.6806	-.6956
.900		-.4329	-.6485	-.6711	-.6431

ALPHA (2) = -.417 BETA (3) =   4.031

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5948	.4352	.3328	.3563	.3585
.025	.5003	.3800	.2687	.2742	.2830
.050	.4979	.3620	.2902	.2663	.2233
.150	.3597	.2816	.2325	.2214	.1516
.300	.2133	.1798	.1551	.1261	.0485
.520	.0477	.0162	-.0043	.0177	-.1323
.750	-.4539	-.6063	-.6281	-.6666	-.7129
.900		-.4475	-.5845	-.6397	-.6968

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV36)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.717 BETA (1) =   .000

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6695	.4838	.3998	.3986	.4075
.025	.0638	-.0898	-.2279	-.2471	-.2732
.050	.2559	-.0752	-.2026	-.1833	-.2061
.150	.1474	.0308	-.0433	-.0261	-.0646
.300	.0090	-.0480	-.0598	-.0704	-.0954
.520	-.1470	-.1519	-.1511	-.1273	-.2106
.750	-.4725	-.7154	-.7072	-.7229	-.7435
.900		-.4905	-.6934	-.7101	-.7000

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV37)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT		
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT		
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT		
SCALE = .0200			

ELV-IB = .000   ELV-CB = .000
RUDDER = .000   MACH = 1.250
GIMBAL = 2.000

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.149 BETA (1) = .006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7718	.6487	.6117	.6155	.6268
.025	.2074	.0675	-.0659	-.1042	-.1176
.050	.3673	.1039	-.0473	-.0567	-.0697
.150	.3249	.2007	.1244	.1442	.1121
.300	.1881	.1246	.1008	.1071	.0881
.520	.0176	.0233	.0299	.0642	-.0004
.750	-.3636	-.4988	-.4874	-.4911	-.5068
.900		-.3915	-.4803	-.4922	-.4690

ALPHA (2) = -.414 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6337	.5663	.5396	.4975	.4859
.025	-.0922	-.2309	-.4085	-.6595	-.6566
.050	-.1094	-.2460	-.4073	-.6125	-.6551
.150	-.1115	-.2237	-.3784	-.5180	-.5791
.300	.0752	-.1193	-.2928	-.3018	-.4542
.520	-.1284	-.1535	-.2439	-.2441	-.1947
.750	-.3837	-.5567	-.5338	-.5647	-.5607
.900		-.3982	-.5552	-.5365	-.5425

ALPHA (2) = -.459 BETA (2) = .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7096	.6023	.5449	.5405	.5518
.025	.1202	.0253	-.0912	-.1311	-.1457
.050	.2949	.0515	-.0810	-.0901	-.0848
.150	.2737	.1622	.0810	.1018	.0749
.300	.1520	.0852	.0581	.0685	.0467
.520	-.0168	-.0194	-.0088	.0252	-.0342
.750	-.3621	-.5092	-.4940	-.4965	-.5174
.900		-.4045	-.4893	-.4960	-.4878

ALPHA (2) = -.468 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6364	.5029	.4211	.4424	.4518
.025	.5103	.4186	.2893	.3282	.3507
.050	.5198	.4000	.3341	.3248	.3050
.150	.3989	.3167	.2869	.2923	.2429
.300	.2648	.2201	.2238	.2235	.1572
.520	.1009	.0971	.1050	.1343	.0055
.750	-.3790	-.4500	-.4473	-.4714	-.5143
.900		-.3847	-.4206	-.4586	-.5100

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV37)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.864 BETA (1) =   .003   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .6975   .5283   .4499   .4396   .4559
                                             .025   .0287   -.0225 -.1358   -.1731   -.1734
                                             .050   .2716   -.0176 -.1179   -.1176   -.1198
                                             .150   .2057   .0952   .0235   .0454   .0253
                                             .300   .0828   .0232   .0019   .0094   -.0089
                                             .520   -.0694   -.0726 -.0644   -.0296   -.0877
                                             .750   -.3671   -.5479 -.5270   -.5292   -.5517
                                             .900   -.3999 -.5229   -.5254   -.5276

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV38)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7734	.6992	.6520	.6496	.6625
.025	.2221	.1417	.0157	-.0403	-.0460
.050	.2971	.1583	.0206	.0043	.0063
.150	.3820	.2550	.1890	.1981	.1626
.300	.2466	.1877	.1599	.1702	.1516
.520	.0847	.0809	.0968	.1274	.0828
.750	-.2757	-.3687	-.3492	-.3470	-.3663
.900		-.3534	-.3472	-.3518	-.3450

ALPHA (2) = -.387 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6701	.5926	.5861	.5475	.5335
.025	-.1177	-.1359	-.3225	-.4974	-.4873
.050	-.1265	-.1443	-.3245	-.4782	-.5219
.150	-.0974	-.1420	-.2757	-.4069	-.4187
.300	.1621	-.0833	-.1835	-.2521	-.3308
.520	-.0414	-.0775	-.1559	-.1506	-.1353
.750	-.3142	-.4189	-.4161	-.4413	-.4169
.900		-.3241	-.4258	-.4159	-.4186

ALPHA (2) = -.318 BETA (2) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7024	.6489	.5866	.5720	.5961
.025	.1184	.0945	-.0232	-.0671	-.0765
.050	.2050	.0985	-.0111	-.0158	-.0230
.150	.3255	.2163	.1519	.1565	.1360
.300	.2038	.1437	.1194	.1268	.1136
.520	.0497	.0487	.0557	.0940	.0463
.750	-.2879	-.3805	-.3630	-.3605	-.3809
.900		-.3700	-.3620	-.3611	-.3663

ALPHA (2) = -.354 BETA (3) = 4.031

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6722	.5372	.4802	.4949	.5168
.025	.5113	.4603	.3427	.3604	.3990
.050	.5291	.4393	.3809	.3737	.3712
.150	.4282	.3679	.3305	.3458	.3087
.300	.3113	.2601	.2753	.2920	.2388
.520	.1525	.1526	.1816	.2209	.1098
.750	-.3004	-.3287	-.3115	-.3227	-.3630
.900		-.3211	-.2982	-.3177	-.3641

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM VERTICAL   (REUV38)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.939 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6622	.5638	.4966	.4772	.4964
.025	-.0240	.0231	-.0628	-.1175	-.1152
.050	.2082	.0279	-.0586	-.0626	-.0662
.150	.2196	.1550	.0892	.1067	.0977
.300	.1348	.0809	.0576	.0683	.0567
.520	-.0071	-.0105	.0001	.0398	-.0056
.750	-.2875	-.4158	-.3892	-.3845	-.4048
.900		-.3497	-.3888	-.3832	-.3955

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV39)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-CB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -8.139 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .5596   .5138   .5044   .5397   .5190
                                             .025   .0356   -.2117   -.3821   -.4535   -.4967
                                             .050   .2140   -.1205   -.3146   -.3570   -.4192
                                             .150   .0655   .0000   -.1089   -.1337   -.1340
                                             .300   -.0634   -.1085   -.1482   -.1825   -.1976
                                             .520   -.2258   -.2768   -.2953   -.2489   -.3310
                                             .750   -.2770   -.4240   -.5325   -.3431   -.2475
                                             .900   -.2835   -.3870   -.3083   -.1873

ALPHA (2) = -4.032 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .5140   .4167   .4276   .4780   .4552
                                             .025   -.0361   -.2450   -.4077   -.4555   -.4851
                                             .050   .1522   -.1933   -.3288   -.3396   -.3869
                                             .150   -.0002   .0000   -.1476   -.1456   -.1484
                                             .300   -.1337   -.1675   -.1661   -.1988   -.2147
                                             .520   -.2607   -.3007   -.3133   -.2631   -.3521
                                             .750   -.2623   -.3764   -.4772   -.2963   -.2079
                                             .900   -.2623   -.3288   -.2513   -.1422

ALPHA (3) = -.228 BETA (1) = -4.003   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .3881   .3318   .3192   .2474   .2239
                                             .025   -.4467   -.7035   -.9002   -.9804 -1.0417
                                             .050   -.4889   -.7109   -.8942   -.9594 -1.0258
                                             .150   -.2353   .0000   -.8751   -.8400 -1.0246
                                             .300   -.3619   -.4429   -.7566   -.7373   -.8655
                                             .520   -.5013   -.4020   -.5521   -.5848   -.4297
                                             .750   -.2758   -.3073   -.3822   -.2941   -.2113
                                             .900   -.2820   -.2321   -.2363   -.1366

ALPHA (3) = -.249 BETA (2) =   .012   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .4898   .3202   .3653   .4192   .3899
                                             .025   -.1161   -.3018   -.3875   -.4489   -.4824
                                             .050   .0822   -.2572   -.3183   -.3073   -.3847
                                             .150   -.0705   .0000   -.1494   -.1520   -.1715
                                             .300   -.2083   -.2373   -.1658   -.2051   -.2310
                                             .520   -.2785   -.2917   -.3181   -.2776   -.3759
                                             .750   -.2498   -.3233   -.4607   -.2786   -.2013
                                             .900   -.2389   -.2655   -.2280   -.1217
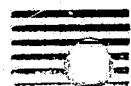
ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV39)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = -.261 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3737	.2166	.1193	.1866	.1506
.025	.2726	.1701	.1333	.1444	.1225
.050	.2646	.1564	.1353	.1213	.0566
.150	.1183	.0000	.0672	.0470	-.0356
.300	-.0033	-.0073	-.0289	-.0702	-.1626
.520	-.1664	-.2066	-.2329	-.2127	-.3854
.750	-.2652	-.3291	-.4683	-.6037	-.6212
.900		-.2181	-.2279	-.4404	-.2593

ALPHA (4) = 4.032 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4674	.2947	.2851	.3395	.3160
.025	-.1895	-.3439	-.3822	-.4251	-.4528
.050	.0125	-.1874	-.3084	-.2956	-.3673
.150	-.1288	.0000	-.1622	-.1656	-.1869
.300	-.2693	-.3078	-.1761	-.2291	-.2524
.520	-.2839	-.2705	-.3284	-.3019	-.3995
.750	-.2325	-.2814	-.4402	-.2884	-.1891
.900		-.2327	-.2382	-.2428	-.1088

ALPHA (5) = 7.920 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.2965	.2228	.2614	.3028	.2578
.025	-.1922	-.3734	-.4165	-.4223	-.4524
.050	-.0794	-.2446	-.3209	-.2934	-.3728
.150	-.1391	.0000	-.1854	-.1769	-.2118
.300	-.2556	-.2239	-.1928	-.2409	-.2727
.520	-.3111	-.3010	-.3353	-.3143	-.4320
.750	-.2554	-.2667	-.4202	-.3888	-.2194
.900		-.2225	-.2124	-.3011	-.1344

                             ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV40)   (19 OCT 74)

                REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -7.992 BETA (1) =   .003   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .7742   .6696   .6493   .6769   .6539
                                             .025   .2517   .0446   -.0979   -.1539   -.2290
                                             .050   .4270   .0989   -.0557   -.0955   -.1633
                                             .150   .2955   .0000   .1232   .1138   .0879
                                             .300   .1620   .1132   .0989   .0518   .0354
                                             .520   .0097   .0000   -.0207   -.0002   -.0809
                                             .750   -.3373   -.6385   -.6508   -.6680   -.6715
                                             .900   -.3666   -.6402   -.6567   -.6001

ALPHA (2) = -4.080 BETA (1) =   .003   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .7369   .6049   .5748   .5974   .5809
                                             .025   .2003   .0176   -.1408   -.1778   -.2327
                                             .050   .3812   .0618   -.1043   -.1065   -.1528
                                             .150   .2552   .0000   .0808   .0807   .0469
                                             .300   .1236   .0714   .0566   .0241   .0018
                                             .520   -.0365   -.0449   -.0555   -.0349   -.1176
                                             .750   -.3500   -.6546   -.6648   -.6836   -.6920
                                             .900   -.3713   -.6509   -.6734   -.6284

ALPHA (3) = -.225 BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .6027   .5280   .4857   .4216   .4118
                                             .025   -.1347   -.3491   -.5419   -.7317   -.8731
                                             .050   -.1649   -.3623   -.5363   -.7207   -.8360
                                             .150   -.0268   .0000   -.5129   -.5564   -.7403
                                             .300   -.0570   -.1831   -.4180   -.4279   -.4228
                                             .520   -.2387   -.2388   -.3064   -.3980   -.3209
                                             .750   -.4202   -.6404   -.7174   -.7218   -.7583
                                             .900   -.4513   -.7285   -.7098   -.5941

ALPHA (3) = -.159 BETA (2) =   .012   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .7039   .5667   .5022   .5191   .5093
                                             .025   .1178   -.0236   -.1645   -.1982   -.2379
                                             .050   .3232   .0121   -.1333   -.1230   -.1683
                                             .150   .2160   .0000   .0318   .0471   .0034
                                             .300   .0835   .0267   .0119   -.0067   -.0337
                                             .520   -.0737   -.0837   -.0928   -.0699   -.1527
                                             .750   -.3666   -.6681   -.6767   -.6936   -.7086
                                             .900   -.3867   -.6594   -.6833   -.6557

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV40)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = -.312 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6081	.4574	.3521	.3972	.3751
.025	.5020	.3797	.2604	.2726	.2751
.050	.4954	.3603	.2876	.2677	.2295
.150	.3557	.0000	.2370	.2248	.1573
.300	.2164	.1789	.1592	.1312	.0551
.520	.0513	.0195	.0062	.0266	-.1228
.750	-.3628	-.5781	-.6148	-.6548	-.7016
.900		-.3853	-.5717	-.6281	-.6802

ALPHA (4) = 3.885 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6738	.4920	.4095	.4165	.4082
.025	.0665	-.0822	-.2209	-.2485	-.2667
.050	.2613	-.0698	-.1964	-.1730	-.1900
.150	.1455	.0000	-.0461	-.0210	-.0561
.300	.0095	-.0493	-.0586	-.0645	-.0936
.520	-.1468	-.1517	-.1480	-.1239	-.2074
.750	-.3983	-.6969	-.7050	-.7191	-.7399
.900		-.4224	-.6896	-.7082	-.6957

ALPHA (5) = 8.073 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6379	.4316	.3003	.3008	.3131
.025	.0495	-.1351	-.2919	-.3211	-.3193
.050	.2342	-.1156	-.2696	-.2549	-.2472
.150	.1038	.0000	-.1310	-.1099	-.1203
.300	-.0618	-.1365	-.1453	-.1416	-.1584
.520	-.2244	-.2214	-.2183	-.1844	-.2674
.750	-.4490	-.7395	-.7445	-.7551	-.7806
.900		-.4756	-.7305	-.7405	-.7463

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV41)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP =	976.0000 IN. XT		ELV-IB =	.000	ELV-OB =	.000
LREF = 1290.3000 IN.	YMRP =	.0000 IN. YT		RUDDER =	.000	MACH =	1.250
BREF = 1290.3000 IN.	ZMRP =	400.0000 IN. ZT		GIMBAL =	1.000		
SCALE = .0200							

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -8.232 BETA (1) = -.006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.8352	.7339	.6969	.7198	.7155
.025	.2782	.1095	-.0229	-.0590	-.0942
.050	.4451	.1547	-.0023	-.0122	-.0322
.150	.3849	.0000	.1834	.1976	.1632
.300	.2459	.1805	.1625	.1581	.1427
.520	.0756	.0787	.0855	.1100	.0446
.750	-.3091	-.4703	-.4617	-.4688	-.4782
.900		-.3317	-.4552	-.4699	-.4309

ALPHA (2) = -4.098 BETA (1) = -.006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7875	.6676	.6219	.6368	.6358
.025	.2156	.0809	-.0571	-.1013	-.1020
.050	.3785	.1119	-.0408	-.0443	-.0509
.150	.3372	.0000	.1311	.1477	.1183
.300	.2009	.1276	.1114	.1172	.0981
.520	.0273	.0244	.0387	.0728	.0081
.750	-.3062	-.4912	-.4765	-.4802	-.4946
.900		-.3340	-.4692	-.4812	-.4567

ALPHA (3) = -.243 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6552	.5856	.5436	.4948	.4921
.025	-.0983	-.2253	-.4140	-.6512	-.6616
.050	-.1121	-.2336	-.4132	-.6306	-.6576
.150	-.0517	.0000	-.3713	-.5187	-.5760
.300	.0749	-.1038	-.2719	-.2732	-.4446
.520	-.1265	-.1487	-.2195	-.2256	-.1808
.750	-.3621	-.5637	-.5421	-.5592	-.5587
.900		-.3824	-.5571	-.5430	-.5422

ALPHA (3) = -.171 BETA (2) = .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7180	.6085	.5462	.5511	.5522
.025	.1245	.0298	-.0941	-.1366	-.1461
.050	.3009	.0540	-.0845	-.0903	-.0879
.150	.2743	.0000	.0772	.0906	.0695
.300	.1528	.0788	.0545	.0631	.0447
.520	-.0149	-.0242	-.0114	.0233	-.0381
.750	-.3240	-.5139	-.4978	-.4994	-.5195
.900		-.3526	-.4931	-.4995	-.4909

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV41)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = -.171 BETA (3) = 4.025

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6427	.5118	.4238	.4632	.4542
.025	.4795	.3952	.2709	.3244	.3258
.050	.5021	.3830	.3118	.3100	.2919
.150	.3918	.0000	.2726	.2804	.2297
.300	.2597	.2156	.2153	.2130	.1452
.520	.0866	.0893	.0951	.1221	-.0069
.750	-.3244	-.4567	-.4572	-.4823	-.5261
.900		-.3415	-.4316	-.4700	-.5219

ALPHA (4) = 7.860 BETA (1) = -.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6891	.5056	.3823	.3714	.3725
.025	.0631	-.0391	-.1561	-.2020	-.2139
.050	.2804	-.0315	-.1393	-.1532	-.1532
.150	.1909	.0000	-.0196	-.0016	-.0219
.300	.0534	-.0077	-.0357	-.0343	-.0560
.520	-.1072	-.1035	-.0997	-.0720	-.1328
.750	-.3834	-.5696	-.5476	-.5537	-.5787
.900		-.4090	-.5411	-.5457	-.5590

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV42)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA .

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000 · ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.059 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7860	.7224	.6613	.6745	.6729
.025	.2289	.1509	.0102	-.0423	-.0555
.050	.3192	.1743	.0187	.0188	-.0093
.150	.3927	.0000	.1942	.2011	.1767
.300	.2547	.1905	.1670	.1729	.1580
.520	.0931	.0842	.1023	.1351	.0882
.750	-.2810	-.3622	-.3401	-.3394	-.3576
.900		-.3532	-.3399	-.3438	-.3361

ALPHA (2) = -.183 BETA (1) = -3.997

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6793	.6194	.5858	.5438	.5407
.025	-.1031	-.1222	-.3210	-.4801	-.4873
.050	-.1078	-.1289	-.3226	-.4955	-.5190
.150	-.0602	.0000	-.2669	-.3984	-.4135
.300	.1599	-.0629	-.1649	-.2469	-.3217
.520	-.0368	-.0690	-.1408	-.1244	-.1099
.750	-.3171	-.4197	-.4121	-.4286	-.4068
.900		-.3659	-.4198	-.4119	-.4080

ALPHA (2) = -.195 BETA (2) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6996	.6563	.5873	.5896	.5944
.025	.1270	.0887	-.0323	-.0772	-.0979
.050	.2119	.0977	-.0187	-.0323	-.0379
.150	.3211	.0000	.1423	.1529	.1322
.300	.2001	.1440	.1153	.1236	.1092
.520	.0501	.0455	.0560	.0880	.0438
.750	-.2867	-.3840	-.3652	-.3613	-.3829
.900		-.3616	-.3646	-.3629	-.3672

ALPHA (2) =   .027 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6662	.5463	.4777	.5087	.5122
.025	.4843	.4398	.3182	.3343	.3758
.050	.5137	.4219	.3594	.3553	.3563
.150	.4170	.0000	.3137	.3293	.2975
.300	.3027	.2531	.2624	.2753	.2296
.520	.1468	.1475	.1712	.2117	.1015
.750	-.2976	-.3370	-.3183	-.3277	-.3683
.900		-.3236	-.3054	-.3221	-.3694

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV42)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.924 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6566	.5759	.4963	.4992	.5060
.025	-.0220	.0296	-.0645	-.1082	-.1153
.050	.2112	.0290	-.0548	-.0598	-.0584
.150	.2181	.0000	.0867	.1061	.0946
.300	.1357	.0811	.0636	.0711	.0627
.520	-.0001	-.0058	.0065	.0456	-.0020
.750	-.2859	-.4123	-.3968	-.3823	-.4045
.900		-.3423	-.3826	-.3807	-.3947

ALPHA (4) = 7.809 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6676	.5382	.4157	.4141	.4142
.025	.0530	.0391	-.0770	-.1189	-.1258
.050	.2564	.0408	-.0644	-.0697	-.0691
.150	.2430	.0000	.0530	.0673	.0516
.300	.1107	.0481	.0265	.0321	.0217
.520	-.0369	-.0421	-.0275	.0049	-.0352
.750	-.3125	-.4242	-.3992	-.3992	-.4208
.900		-.3743	-.3925	-.3936	-.4151

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV43)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -8.133 BETA (1) =   .003   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .5839   .5025   .5036   .5403   .4985
                                            .025   .0345 -.2304 -.3681 -.4471 -.5384
                                            .050   .2148 -.1268 -.3085 -.3755 -.4721
                                            .150   .0610   .0000 -.1128 -.1362 -.1559
                                            .300 -.0813 -.0989 -.1455 -.1930 -.2232
                                            .520 -.2362 -.2672 -.2939 -.2625 -.3621
                                            .750 -.3551 -.4692 -.7452 -.5465 -.5271
                                            .900   -.3437 -.4279 -.4718 -.4533

ALPHA (2) = -4.002 BETA (1) =   .003   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .5282   .4179   .4207   .4696   .4527
                                            .025 -.0441 -.2486 -.4111 -.4603 -.4929
                                            .050   .1528 -.1926 -.3449 -.3542 -.3958
                                            .150 -.0070   .0000 -.1620 -.1581 -.1551
                                            .300 -.1395 -.1809 -.1865 -.2080 -.2167
                                            .520 -.2677 -.3083 -.3266 -.2654 -.3595
                                            .750 -.2663 -.4131 -.4932 -.3088 -.2264
                                            .900   -.2782 -.3736 -.2590 -.1540

ALPHA (3) = -.342 BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .3793   .3237   .3139   .2476   .2189
                                            .025 -.4611 -.7248 -.9179 -.9784 -1.1229
                                            .050 -.4989 -.7313 -.9130 -.9639 -1.0965
                                            .150 -.2451   .0000 -.8919 -.8461 -1.0743
                                            .300 -.3724 -.4548 -.7746 -.7385 -.8804
                                            .520 -.5169 -.4111 -.5785 -.5943 -.4015
                                            .750 -.3031 -.3116 -.3885 -.3000 -.2210
                                            .900   -.2830 -.2385 -.2488 -.1592

ALPHA (3) = -.357 BETA (2) =   .012   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .4840   .3112   .3495   .4190   .3847
                                            .025 -.1312 -.3133 -.4194 -.4674 -.5086
                                            .050   .0718 -.2613 -.3662 -.3422 -.4083
                                            .150 -.0826   .0000 -.1827 -.1667 -.1842
                                            .300 -.2209 -.2440 -.1930 -.2207 -.2506
                                            .520 -.3073 -.3166 -.3322 -.2960 -.3998
                                            .750 -.2693 -.3314 -.4833 -.3063 -.2241
                                            .900   -.2698 -.2904 -.2637 -.1464

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV43)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = -.288 BETA (3) = 4.022

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3776	.2288	.1246	.1908	.1535
.025	.2678	.1844	.0991	.1382	.1254
.050	.2644	.1627	.1191	.1113	.0523
.150	.1137	.0000	.0568	.0504	-.0422
.300	-.0031	-.0105	-.0361	-.0776	-.1769
.520	-.1651	-.2114	-.2384	-.2133	-.3919
.750	-.2690	-.3564	-.4812	-.6400	-.5665
.900		-.2240	-.2446	-.4351	-.3130

ALPHA (4) = 3.924 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3655	.2807	.3228	.3601	.3191
.025	-.1553	-.3907	-.3877	-.4401	-.4743
.050	-.0258	-.2268	-.3094	-.3016	-.3739
.150	-.1139	.0000	-.1647	-.1680	-.1993
.300	-.2294	-.2194	-.1801	-.2350	-.2656
.520	-.2967	-.3018	-.3300	-.3163	-.4234
.750	-.2598	-.2869	-.4768	-.3169	-.2189
.900		-.2250	-.2247	-.2563	-.1281

ALPHA (5) = 7.962 BETA (1) =   .000

Z/BV	.158	.316	.600	.340	.925
X/CV					
.000	.3134	.2319	.2703	.3082	.2715
.025	-.1839	-.3701	-.4007	-.4118	-.4413
.050	-.0742	-.2302	-.3231	-.2905	-.3564
.150	-.1275	.0000	-.1829	-.1696	-.2012
.300	-.2352	-.2407	-.1927	-.2327	-.2642
.520	-.2943	-.3051	-.3336	-.3088	-.4252
.750	-.2496	-.2671	-.4216	-.3292	-.1998
.900		-.2209	-.1970	-.2387	-.1081

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV44)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.30   IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -8.106 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                           X/CV
                                           .000   .7697   .6710   .6524   .6799   .6548
                                           .025   .2498   .0381 -.1029 -.1568 -.2369
                                           .050   .4250   .0886 -.0613 -.0876 -.1675
                                           .150   .2906   .0000   .1261   .1129   .0859
                                           .300   .1578   .1145   .0996   .0525   .0345
                                           .520   .0068 -.0024 -.0213 -.0011 -.0820
                                           .750   -.3103 -.6253 -.6508 -.6693 -.6728
                                           .900   -.3369 -.6402 -.6586 -.6010

ALPHA (2) = -4.038 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                           X/CV
                                           .000   .7345   .6012   .5742   .5968   .5776
                                           .025   .1922   .0112 -.1485 -.1850 -.2415
                                           .050   .3741   .0447 -.1086 -.1097 -.1657
                                           .150   .2496   .0000   .0730   .0743   .0379
                                           .300   .1157   .0665   .0530   .0190 -.0041
                                           .520   -.0433 -.0484 -.0630 -.0401 -.1248
                                           .750   -.3317 -.6441 -.6733 -.6898 -.6986
                                           .900   -.3522 -.6584 -.6801 -.6362

ALPHA (3) = -.363 BETA (1)'= -4.003   Z/BV   .158   .316   .600   .840   .925
                                           X/CV
                                           .000   .5978   .5214   .4763   .4132   .4051
                                           .025   -.1409 -.3626 -.5608 -.7488 -.8885
                                           .050   -.1737 -.3738 -.5560 -.7418 -.8487
                                           .150   -.0333   .0000 -.5316 -.5740 -.7751
                                           .300   -.0706 -.1952 -.4326 -.4491 -.4405
                                           .520   -.2496 -.2578 -.3205 -.4092 -.3351
                                           .750   -.4122 -.5696 -.7325 -.7354 -.7715
                                           .900   -.4454 -.7432 -.7245 -.7097

ALPHA (3) = -.363 BETA (2) =   .012   Z/BV   .158   .316   .600·   .840   .925
                                           X/CV
                                           .000   .6979   .5591   .4994   .5158   .5026
                                           .025   .1064 -.0382 -.1826 -.2134 -.2553
                                           .050   .3165 -.0097 -.1524 -.1419 -.1799
                                           .150   .2063   .0000   .0222   .0350 -.0101
                                           .300   .0753   .0161   .0043 -.0205 -.0457
                                           .520   -.0846 -.0920 -.1025 -.0819 -.1638
                                           .750   -.3489 -.6569 -.6900 -.7061 -.7214
                                           .900   -.3723 -.6739 -.6959 -.6681

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV44)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = -.393 BETA (3) = 4.022

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6044	.4509	.3499	.3928	.3683
.025	.4971	.3669	.2538	.2631	.2630
.050	.4893	.3518	.2792	.2629	.2209
.150	.3494	.0000	.2280	.2193	.1496
.300	.2063	.1752	.1523	.1248	.0469
.520	.0417	.0122	-.0039	.0183	-.1318
.750	-.3508	-.5828	-.6288	-.6658	-.7123
.900		-.3744	-.5856	-.6365	-.6820

ALPHA (4) = 3.888 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6634	.4854	.3895	.3951	.3917
.025	.0694	-.1030	-.2366	-.2720	-.2916
.050	.2558	-.0853	-.2122	-.2012	-.2208
.150	.1362	.0000	-.0624	-.0409	-.0783
.300	-.0059	-.0619	-.0746	-.0867	-.1148
.520	-.1607	-.1596	-.1676	-.1445	-.2296
.750	-.3946	-.7010	-.7240	-.7388	-.7628
.900		-.4197	-.7110	-.7279	-.7174

ALPHA (5) = 7.977 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6373	.4214	.2962	.2984	.3010
.025	.0547	-.1451	-.2856	-.3210	-.3317
.050	.2338	-.1294	-.2665	-.2576	-.2646
.150	.0981	.0000	-.1299	-.1117	-.1346
.300	-.0799	-.1347	-.1480	-.1456	-.1702
.520	-.2390	-.2201	-.2198	-.1954	-.2774
.750	-.4289	-.7172	-.7477	-.7607	-.7872
.900		-.4511	-.7340	-.7477	-.7544

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV45)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -8.244 BETA (1) = -.009   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .8402   .7388   .6981   .7242   .7186
                                            .025   .2896   .1187   -.0189   -.0550   -.0894
                                            .050   .4545   .1617   -.0011   -.0080   -.0274
                                            .150   .3884   .0000   .1876   .1996   .1702
                                            .300   .2490   .1791   .1660   .1616   .1448
                                            .520   .0836   .0791   .0879   .1128   .0460
                                            .750   -.2532   -.4718   -.4627   -.4712   -.4784
                                            .900   -.2809   -.4561   -.4713   -.4315

ALPHA (2) = -3.936 BETA (1) = -.009   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .7804   .6594   .6170   .6310   .6251
                                            .025   .2085   .0723   -.0589   -.1052   -.1169
                                            .050   .3678   .0996   -.0512   -.0576   -.0578
                                            .150   .3277   .0000   .1269   .1398   .1109
                                            .300   .1916   .1233   .1036   .1078   .0855
                                            .520   .0193   .0204   .0325   .0613   -.0022
                                            .750   -.2656   -.4974   -.4842   -.4910   -.5059
                                            .900   -.2870   -.4777   -.4916   -.4679

ALPHA (3) = -.309 BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .6595   .5918   .5515   .5002   .4989
                                            .025   -.0933   -.1921   -.4082   -.6438   -.6522
                                            .050   -.1066   -.1937   -.4079   -.6255   -.6506
                                            .150   -.0471   .0000   -.3662   -.5144   -.5677
                                            .300   .0833   -.0991   -.2672   -.2660   -.4311
                                            .520   -.1173   -.1423   -.2145   -.2157   -.1698
                                            .750   -.3049   -.5202   -.5369   -.5514   -.5496
                                            .900   -.3337   -.5518   -.5355   -.5329

ALPHA (3) = -.360 BETA (2) =   .009   Z/BV   .158   .316   .600   .840   .925
                                            X/CV
                                            .000   .7232   .6159   .5515   .5572   .5568
                                            .025   .1299   .0277   -.0944   -.1391   -.1515
                                            .050   .2993   .0503   -.0835   -.0918   -.0961
                                            .150   .2782   .0000   .0791   .0945   .0674
                                            .300   .1537   .0808   .0582   .0658   .0470
                                            .520   -.0180   -.0251   -.0091   .0231   -.0348
                                            .750   -.2714   -.5117   -.4956   -.4983   -.5183
                                            .900   -.2943   -.4911   -.4984   -.4885

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV45)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = -.405 BETA (3) = 4.025

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6498	.5205	.4306	.4736	.4634
.025	.4859	.4028	.2685	.3296	.3306
.050	.5090	.3907	.3172	.3124	.2989
.150	.3985	.0000	.2818	.2891	.2367
.300	.2692	.2172	.2189	.2204	.1520
.520	.0932	.0925	.1001	.1294	.0012
.750	-.2709	-.4505	-.4519	-.4754	-.5188
.900		-.2875	-.4257	-.4621	-.5142

ALPHA (4) = 3.873 BETA (1) = .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7131	.5471	.4597	.4607	.4643
.025	.0380	-.0157	-.1261	-.1626	-.1710
.050	.2810	-.0081	-.1117	-.1095	-.1047
.150	.2086	.0000	.0304	.0515	.0320
.300	.0890	.0328	.0108	.0174	-.0035
.520	-.0690	-.0672	-.0566	-.0261	-.0832
.750	-.2830	-.5343	-.5186	-.5234	-.5467
.900		-.3040	-.5135	-.5198	-.5234

ALPHA (5) = 7.989 BETA (1) = .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7021	.5148	.3911	.3767	.3794
.025	.0766	-.0165	-.1396	-.1816	-.1910
.050	.2936	-.0096	-.1278	-.1320	-.1314
.150	.2048	.0000	-.0069	.0062	-.0098
.300	.0646	.0019	-.0259	-.0254	-.0446
.520	-.0944	-.0948	-.0911	-.0572	-.1244
.750	-.3169	-.5590	-.5369	-.5425	-.5681
.900		-.3439	-.5311	-.5343	-.5490

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REJV46)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -8.175 BETA (1) =   .003   Z/BV   .158   .316   .600   .840   .925
                                           X/CV
                                            .000   .8519   .7846   .7403   .7569   .7546
                                            .025   .2874   .1752   .0382   -.0202   -.0362
                                            .050   .3865   .2026   .0480   .0318   .0158
                                            .150   .4396   .0000   .2409   .2377   .2181
                                            .300   .3012   .2368   .2072   .2143   .1963
                                            .520   .1357   .1334   .1471   .1729   .1262
                                            .750   -.2050   -.3483   -.3293   -.3286   -.3413
                                            .900   -.2508   -.3292   -.3362   -.3127

ALPHA (2) = -4.002 BETA (1) =   .003   Z/BV   .158   .316   .600   .840   .925
                                           X/CV
                                            .000   .7804   .7193   .6604   .6722   .6689
                                            .025   .2287   .1445   .0015   -.0503   -.0642
                                            .050   .3072   .1633   .0119   .0147   -.0117
                                            .150   .3856   .0000   .1895   .1959   .1678
                                            .300   .2518   .1870   .1634   .1686   .1533
                                            .520   .0851   .0837   .0994   .1293   .0837
                                            .750   -.2122   -.3658   -.3445   -.3445   -.3625
                                            .900   -.2554   -.3451   -.3483   -.3397

ALPHA (3) = -.348 BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                           X/CV
                                            .000   .6870   .6242   .5949   .5487   .5489
                                            .025   -.1021   -.1231   -.3204   -.4785   -.4814
                                            .050   -.1140   -.1316   -.3201   -.4890   -.5135
                                            .150   -.0595   .0000   -.2657   -.3927   -.4063
                                            .300   .1634   -.0635   -.1591   -.2602   -.3217
                                            .520   -.0339   -.0645   -.1318   -.1215   -.1117
                                            .750   -.2518   -.4145   -.4103   -.4242   -.4008
                                            .900   -.2753   -.4169   -.4076   -.4010

ALPHA (3) = -.369 BETA (2) =   .016   Z/BV   .158   .316   .600   .840   .925
                                           X/CV
                                            .000   .7059   .6646   .5906   .5970   .5990
                                            .025   .1373   .0996   -.0211   -.0688   -.0777
                                            .050   .2195   .1084   -.0075   -.0222   -.0184
                                            .150   .3296   .0000   .1495   .1555   .1343
                                            .300   .2059   .1463   .1220   .1264   .1137
                                            .520   .0506   .0462   .0605   .0913   .0480
                                            .750   -.2233   -.3793   -.3594   -.3591   -.3790
                                            .900   -.2597   -.3585   -.3600   -.3627
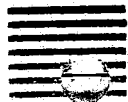
ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV46)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = -.360 BETA (3) = 4.028

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6831	.5559	.4911	.5279	.5281
.025	.4935	.4541	.3217	.3782	.3844
.050	.5250	.4349	.3666	.3678	.3691
.150	.4293	.0000	.3229	.3433	.3133
.300	.3103	.2625	.2706	.2885	.2423
.520	.1518	.1548	.1827	.2244	.1135
.750	-.2138	-.3294	-.3086	-.3199	-.3595
.900		-.2836	-.2949	-.3152	-.3619

ALPHA (4) = 3.900 BETA (1) = .006

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6717	.5852	.5074	.5032	.5066
.025	-.0176	.0345	-.0594	-.1026	-.1117
.050	.2132	.0313	-.0505	-.0545	-.0565
.150	.2231	.0000	.0919	.1043	.1064
.300	.1451	.0883	.0665	.0739	.0673
.520	.0041	-.0019	.0092	.0453	.0022
.750	-.2191	-.4090	-.3821	-.3778	-.3998
.900		-.2534	-.3828	-.3774	-.3920

ALPHA (5) = 7.653 BETA (1) = .006

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6778	.5498	.4220	.4208	.4205
.025	.0445	.0399	-.0728	-.1213	-.1272
.050	.2496	.0454	-.0571	-.0673	-.0684
.150	.2468	.0000	.0565	.0750	.0561
.300	.1156	.0539	.0255	.0336	.0218
.520	-.0368	-.0385	-.0290	.0051	-.0355
.750	-.2418	-.4229	-.3988	-.3992	-.4191
.900		-.2600	-.3952	-.3958	-.4146

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV47)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-CB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.050 BETA (1) = -.003   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .7857   .7160   .6608   .6735   .6700
                                             .025   .2229   .1444   .0161 -.0495 -.0573
                                             .050   .3099   .1623   .0186   .0072   .0039
                                             .150   .3851   .0000   .1922   .1975   .1668
                                             .300   .2516   .1899   .1626   .1684   .1537
                                             .520   .0882   .0825   .1021   .1272   .0854
                                             .750   -.2992 -.3657 -.3452 -.3434 -.3620
                                             .900   -.3646 -.3436 -.3490 -.3406

ALPHA (2) = -.150 BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .6842   .6182   .5925   .5582   .5496
                                             .025   -.1053 -.1251 -.3210 -.4884 -.4810
                                             .050   -.1106 -.1329 -.3224 -.4801 -.5152
                                             .150   -.0597   .0000 -.2658 -.3954 -.4065
                                             .300   .1630 -.0659 -.1608 -.2568 -.3201
                                             .520   -.0357 -.0663 -.1380 -.1189 -.1090
                                             .750   -.3218 -.4167 -.4113 -.4259 -.4022
                                             .900   -.3810 -.4183 -.4104 -.3998

ALPHA (2) = -.129 BETA (2) =   .009   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .7084   .6601   .5912   .6007   .5963
                                             .025   .1264   .0949 -.0242 -.0761 -.0861
                                             .050   .2082   .1029 -.0107 -.0200 -.0298
                                             .150   .3296   .0000   .1474   .1500   .1328
                                             .300   .2021   .1449   .1207   .1256   .1149
                                             .520   .0507   .0466   .0575   .0912   .0485
                                             .750   -.3026 -.3810 -.3614 -.3570 -.3778
                                             .900   -.3815 -.3605 -.3562 -.3635

ALPHA (2) = -.234 BETA (3) = 4.028   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .6777   .5562   .4912   .5244   .5240
                                             .025   .4907   .4489   .3261   .3428   .3827
                                             .050   .5212   .4310   .3676   .3669   .3669
                                             .150   .4263   .0000   .3298   .3420   .3053
                                             .300   .3098   .2594   .2714   .2876   .2355
                                             .520   .1497   .1501   .1795   .2195   .1085
                                             .750   -.3099 -.3331 -.3140 -.3227 -.3637
                                             .900   -.3226 -.3008 -.3198 -.3562

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV47)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.867 BETA (1) =   .009   Z/BV   .158   .316   .600   .840   .925
                                             X/CV
                                             .000   .6715   .5799   .5061   .5050   .5063
                                             .025   -.0271   .0255   -.0728   -.1185   -.1267
                                             .050   .2007   .0230   -.0615   -.0697   -.0742
                                             .150   .2221   .0000   .0856   .1004   .0967
                                             .300   .1405   .0817   .0600   .0678   .0581
                                             .520   -.0034   -.0094   .0032   .0403   -.0041
                                             .750   -.3082   -.4144   -.3878   -.3817   -.4034
                                             .900   -.3820   -.3890   -.3823   -.3945

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV48)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.143 BETA (1) = -.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7829	.7184	.6586	.6732	.6995
.025	.2218	.1429	.0117	-.0501	-.0566
.050	.3104	.1525	.0187	.0040	.0003
.150	.3865	.0000	.1925	.1944	.1651
.300	.2512	.1854	.1612	.1694	.1552
.520	.0853	.0808	.1002	.1301	.0841
.750	-.2290	-.3687	-.3476	-.3449	-.3630
.900		-.2838	-.3475	-.3502	-.3423

ALPHA (2) = -.243 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6853	.6220	.5948	.5602	.5508
.025	-.1021	-.1249	-.3210	-.4902	-.4830
.050	-.1117	-.1325	-.3216	-.4810	-.5171
.150	-.0647	.0000	-.2666	-.3951	-.4093
.300	.1635	-.0634	-.1585	-.2593	-.3216
.520	-.0361	-.0664	-.1337	-.1195	-.1152
.750	-.2640	-.4166	-.4120	-.4277	-.4030
.900		-.2866	-.4188	-.4095	-.4019

ALPHA (2) = -.324 BETA (2) = .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7064	.6584	.5904	.6006	.5964
.025	.1338	.0990	-.0213	-.0748	-.0798
.050	.2094	.0976	-.0115	-.0215	-.0281
.150	.3289	.0000	.1445	.1510	.1282
.300	.1988	.1426	.1216	.1237	.1129
.520	.0482	.0429	.0548	.0901	.0470
.750	-.2413	-.3824	-.3626	-.3582	-.3799
.900		-.2873	-.3623	-.3008	-.3650

ALPHA (2) = -.435 BETA (3) = 4.025

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6829	.5602	.4918	.5303	.5289
.025	.4942	.4536	.3295	.3472	.3888
.050	.5270	.4353	.3701	.3703	.3720
.150	.4302	.0000	.3293	.3425	.3104
.300	.3131	.2623	.2751	.2895	.2391
.520	.1536	.1556	.1834	.2238	.1128
.750	-.2293	-.3284	-.3078	-.3195	-.3607
.900		-.2942	-.2944	-.3159	-.3602
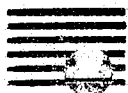
ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV48)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 4.032 BETA (1) = -.006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6693	.5793	.5013	.5004	.5046
.025	-.0234	.0327	-.0668	-.1104	-.1224
.050	.2092	.0330	-.0537	-.0509	-.0568
.150	.2224	.0000	.0896	.1068	.1024
.300	.1401	.0833	.0623	.0721	.0609
.520	.0022	-.0070	.0068	.0445	-.0028
.750	-.2381	-.4126	-.3861	-.3798	-.4024
.900		-.2783	-.3850	-.3789	-.3954

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV49)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.041 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5164	.3963	.4269	.4769	.4418
.025	-.0641	-.2719	-.4139	-.4704	-.5161
.050	.1340	-.2122	-.3448	-.3553	-.4347
.150	-.0286	.0000	-.1586	-.1597	-.1752
.300	-.1591	-.1766	-.1850	-.2042	-.2355
.520	-.2876	-.3124	-.3189	-.2854	-.3726
.750	-.2942	-.3701	-.4636	-.3168	-.2373
.900		-.2633	-.3245	-.2712	-.1607

ALPHA (2) = -.198 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3816	.3203	.3169	.2864	.2302
.025	-.4596	-.7186	-.9060	-.9524	-.9506
.050	-.5057	-.7225	-.9040	-.9620	-.9572
.150	-.2431	.0000	-.8856	-.8849	-.8928
.300	-.3761	-.4518	-.7485	-.7899	-.7211
.520	-.5133	-.4002	-.5599	-.6302	-.5119
.750	-.2948	-.3043	-.3641	-.3138	-.2688
.900		-.2780	-.2047	-.2529	-.1891

ALPHA (2) = -.162 BETA (2) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4865	.3244	.3338	.4133	.3852
.025	-.1299	-.3181	-.4410	-.4686	-.5060
.050	.0793	-.2621	-.3832	-.3307	-.4073
.150	-.0809	.0000	-.1948	-.1688	-.1807
.300	-.2216	-.2525	-.2045	-.2174	-.2439
.520	-.3156	-.3164	-.3166	-.2907	-.3936
.750	-.2593	-.3430	-.4349	-.3360	-.2240
.900		-.2693	-.2619	-.2985	-.1394

ALPHA (2) = -.285 BETA (3) = 4.022

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3771	.2237	.1313	.1944	.1591
.025	.2676	.1632	.0978	.1317	.1225
.050	.2624	.1468	.1163	.1133	.0564
.150	.1131	.0000	.0573	.0464	-.0354
.300	-.0110	-.0232	-.0337	-.0760	-.1601
.520	-.1660	-.2139	-.2366	-.2133	-.3825
.750	-.2605	-.3495	-.4675	-.5988	-.5922
.900		-.2127	-.2282	-.4403	-.2451

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV49)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.828   BETA (1) = -.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3423	.2844	.2967	.3657	.3226
.025	-.1506	-.3719	-.4280	-.4310	-.4711
.050	-.0227	-.2184	-.3599	-.2839	-.3768
.150	-.1134	.0000	-.1700	-.1611	-.1976
.300	-.2448	-.2644	-.1726	-.2229	-.2581
.520	-.3359	-.2993	-.3188	-.3023	-.4182
.750	-.2550	-.2697	-.4672	-.3322	-.2252
.900		-.2340	-.2352	-.3041	-.1498

TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV50)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-CB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) =   .003

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7291	.5980	.5658	.5942	.5711
.025	.1851	.0076	-.1476	-.1890	-.2426
.050	.3641	.0468	-.1076	-.1272	-.1717
.150	.2449	.0000	.0673	.0698	.0334
.300	.1150	.0540	.0439	.0130	-.0121
.520	-.0505	-.0557	-.0685	-.0469	-.1305
.750	-.3735	-.6723	-.6797	-.6982	-.7064
.900		-.3958	-.6675	-.6892	-.6455

ALPHA (2) = -.108 BETA (1) = -4.000

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6019	.5245	.4770	.4534	.4091
.025	-.1465	-.3583	-.5539	-.7334	-.8820
.050	-.1754	-.3727	-.5507	-.7222	-.8409
.150	-.0263	.0000	-.5300	-.5733	-.7406
.300	-.0639	-.1904	-.4254	-.4609	-.4377
.520	-.2458	-.2506	-.3245	-.4244	-.3503
.750	-.4324	-.6672	-.7297	-.7349	-.7692
.900		-.4656	-.7407	-.7197	-.7070

ALPHA (2) = -.141 BETA (2) =   .012

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7044	.5684	.5053	.5251	.5124
.025	.1130	-.0255	-.1693	-.1977	-.2404
.050	.3253	.0045	-.1365	-.1263	-.1703
.150	.2177	.0000	.0324	.0466	.0031
.300	.0905	.0249	.0147	-.0080	-.0353
.520	-.0703	-.0821	-.0908	-.0703	-.1521
.750	-.3705	-.6691	-.6758	-.6935	-.7087
.900		-.3951	-.6806	-.6845	-.6566

ALPHA (2) = -.234 BETA (3) = 4.025

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.5980	.4426	.3401	.3801	.3591
.025	.4850	.3636	.2429	.2551	.2608
.050	.4839	.3485	.2700	.2517	.2105
.150	.3447	.0000	.2190	.2086	.1406
.300	.2033	.1666	.1424	.1151	.0382
.520	.0357	.0039	-.0139	.0055	-.1422
.750	-.3866	-.5988	-.6393	-.6794	-.7264
.900		-.4085	-.5947	-.6527	-.7086

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV50)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.879 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                               X/CV
                                               .000   .6754   .4927   .4081   .4226   .4059
                                               .025   .0714   -.0843   -.2201   -.2500   -.2684
                                               .050   .2583   -.0738   -.1894   -.1766   -.1978
                                               .150   .1482   .0000   -.0469   -.0219   -.0616
                                               .300   .0109   -.0491   -.0607   -.0661   -.1000
                                               .520   -.1432   -.1505   -.1501   -.1267   -.2106
                                               .750   -.4083   -.7062   -.7057   -.7209   -.7444
                                               .900   -.4369   -.6917   -.7109   -.6993

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV51)   (19 OCT 74)

REFERENCE DATA			PARAMETRIC DATA	

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-CB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.008 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7880	.6702	.6231	.6449	.6334
.025	.2185	.0840	-.0550	-.0938	-.1086
.050	.3763	.1163	-.0359	-.0384	-.0557
.150	.3378	.0000	.1308	.1502	.1214
.300	.2045	.1265	.1122	.1141	.0942
.520	.0313	.0259	.0408	.0686	.0043
.750	-.3146	-.4940	-.4794	-.4848	-.4999
.900		-.3445	-.4731	-.4844	-.4624

ALPHA (2) = -.138 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6533	.5889	.5464	.5304	.4972
.025	-.1160	-.2264	-.4123	-.6529	-.6562
.050	-.1252	-.2344	-.4113	-.6074	-.6524
.150	-.0328	.0000	-.3666	-.5079	-.5724
.300	.0722	-.0906	-.2721	-.2732	-.4339
.520	-.1219	-.1455	-.2135	-.2261	-.1782
.750	-.3556	-.5592	-.5364	-.5554	-.5564
.900		-.3841	-.5498	-.5408	-.5402

ALPHA (2) = -.225 BETA (2) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7160	.6085	.5456	.5596	.5534
.025	.1233	.0289	-.0941	-.1359	-.1502
.050	.2988	.0524	-.0803	-.0820	-.0933
.150	.2750	.0000	.0791	.0932	.0669
.300	.1522	.0800	.0559	.0640	.0447
.520	-.0149	-.0210	-.0100	.0227	-.0363
.750	-.3307	-.5120	-.4952	-.4967	-.5178
.900		-.3661	-.4901	-.4982	-.4891

ALPHA (2) = -.252 BETA (3) = 4.022

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6518	.5206	.4327	.4713	.4621
.025	.4867	.4015	.2750	.3069	.3361
.050	.5126	.3922	.3229	.3184	.3006
.150	.4012	.0000	.2837	.2876	.2399
.300	.2733	.2174	.2201	.2219	.1561
.520	.0959	.0952	.1048	.1324	.0043
.750	-.3211	-.4505	-.4452	-.4710	-.5140
.900		-.3432	-.4208	-.4621	-.5094

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV51)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.864 BETA (1) =   .000 .

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7078	.5454	.4560	.4632	.4610
.025	.0400	-.0143	-.1259	-.1685	-.1711
.050	.2733	-.0097	-.1124	-.1066	-.1115
.150	.2045	.0000	.0269	.0507	.0308
.300	.0903	.0292	.0120	.0127	-.0067
.520	-.0634	-.0681	-.0583	-.0262	-.0862
.750	-.3524	-.5406	-.5202	-.5256	-.5489
.900		-.3843	-.5144	-.5227	-.5256

ARC11-014IA19 OTS SRB-OFF MPS-OFF VERTICAL (REUV52) (19 OCT 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN. YMRP = .0000 IN. YT
BREF = 1290.3000 IN. ZMRP = 400.0000 IN. ZT
SCALE = .0200

ELV-IB = 8.000 ELV-OB = 4.000
RUDDER = .000 MACH = 1.400
GIMBAL = 1.000

SECTION (1)VERTICAL DEPENDENT VARIABLE CP

ALPHA (1) = -3.990 BETA (1) = .000

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7774	.7226	.6637	.6769	.6759
.025	.2191	.1445	.0098	-.0447	-.0553
.050	.3004	.1642	.0217	.0060	.0037
.150	.3862	.0000	.1936	.1945	.1664
.300	.2577	.1919	.1629	.1705	.1558
.520	.0906	.0852	.1013	.1318	.0852
.750	-.2909	-.3662	-.3435	-.3480	-.3662
.900		-.3575	-.3429	-.3528	-.3451

ALPHA (2) = -.195 BETA (1) = -4.003

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6783	.6185	.5908	.5784	.5457
.025	-.1349	-.1374	-.3285	-.4959	-.4888
.050	-.1388	-.1444	-.3288	-.4817	-.5226
.150	-.0491	.0000	-.2709	-.4018	-.4149
.300	.1484	-.0610	-.1670	-.2567	-.3250
.520	-.0390	-.0652	-.1416	-.1302	-.1204
.750	-.3222	-.4244	-.4167	-.4310	-.4084
.900		-.3782	-.4219	-.4162	-.4082

ALPHA (2) = -.198 BETA (2) = .009

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.7028	.6557	.5893	.6040	.5952
.025	.1177	.0905	-.0239	-.0778	-.0842
.050	.1996	.0982	-.0115	-.0223	-.0302
.150	.3236	.0000	.1453	.1536	.1294
.300	.2021	.1450	.1209	.1254	.1112
.520	.0481	.0461	.0550	.0908	.0449
.750	-.3034	-.3832	-.3630	-.3631	-.3839
.900		-.3804	-.3618	-.3646	-.3700

ALPHA (2) = -.186 BETA (3) = 4.022

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6754	.5538	.4904	.5199	.5229
.025	.4828	.4499	.3273	.3411	.3882
.050	.5161	.4359	.3706	.3668	.3661
.150	.4259	.0000	.3250	.3407	.3068
.300	.3098	.2600	.2703	.2868	.2362
.520	.1513	.1525	.1791	.2211	.1079
.750	-.3200	-.3311	-.3128	-.3258	-.3654
.900		-.3254	-.2992	-.3221	-.3678

ARC11-014IA19 OTS   SRB-OFF MPS-OFF VERTICAL   (REUV52)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.960 BETA (1) =   .000

X/CV	Z/BV .158	.316	.600	.840	.925
.000	.6669	.5818	.5029	.5078	.5085
.025	-.0158	.0344	-.0644	-.1124	-.1141
.050	.2176	.0339	-.0508	-.0515	-.0591
.150	.2226	.0000	.0886	.1102	.0989
.300	.1418	.0855	.0663	.0732	.0628
.520	.0018	-.0038	.0086	.0435	-.0035
.750	-.2992	-.4123	-.3860	-.3839	-.4061
.900		-.3681	-.3858	-.3838	-.3952

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV53)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF	=	2690.0000 SQ.FT.	XMRP =	976.0000 IN. XT		ELV-IB =	8.000	ELV-OB =	4.000
LREF	=	1290.3000 IN.	YMRP =	.0000 IN. YT		RUDDER =	.000	MACH =	.900
BREF	=	1290.3000 IN.	ZMRP =	400.0000 IN. ZT		GIMBAL =	1.000
SCALE	=	.0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.179 BETA (1) = -.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.5153	.3875	.4262	.4670	.4273
.025	-.0746	-.2805	-.4216	-.4921	-.5499
.050	.1211	-.2262	-.3532	-.3892	-.4522
.150	-.0386	.0000	-.1653	-.1793	-.1907
.300	-.1712	-.1731	-.1914	-.2261	-.2534
.520	-.3056	-.3170	-.3405	-.3028	-.3969
.750	-.3112	-.3752	-.4870	-.3421	-.2581
.900		-.2680	-.3645	-.3080	-.1855

ALPHA (2) = -.339 BETA (1) = -3.997

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3783	.3172	.3153	.2831	.2312
.025	-.4651	-.7169	-.9132	-.9742	-.9621
.050	-.5052	-.7265	-.9079	-.9836	-.9738
.150	-.2490	.0000	-.8848	-.8981	-.9360
.300	-.3777	-.4541	-.7629	-.8090	-.7347
.520	-.5197	-.4095	-.5603	-.6397	-.5247
.750	-.3092	-.3097	-.3849	-.3251	-.2713
.900		-.2919	-.2267	-.2596	-.2023

ALPHA (2) = -.360 BETA (2) = .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.4849	.3124	.3445	.4208	.3901
.025	-.1263	-.3152	-.4346	-.4668	-.5011
.050	.0761	-.2721	-.3905	-.3410	-.4100
.150	-.0793	.0000	-.1926	-.1629	-.1843
.300	-.2226	-.2577	-.2024	-.2168	-.2403
.520	-.3221	-.3242	-.3176	-.2898	-.3938
.750	-.2676	-.3550	-.4532	-.3190	-.2207
.900		-.2677	-.2610	-.2767	-.1507

ALPHA (2) = -.411 BETA (3) = 4.022

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3764	.2268	.1332	.1982	.1602
.025	.2664	.1561	.0943	.1252	.1172
.050	.2622	.1422	.1144	.1045	.0425
.150	.1059	.0000	.0480	.0376	-.0418
.300	-.0207	-.0255	-.0435	-.0747	-.1625
.520	-.1792	-.2192	-.2385	-.2166	-.3904
.750	-.2701	-.3739	-.4900	-.6081	-.6099
.900		-.2234	-.2443	-.4432	-.2800

ARC11-014IA19 OTS   SRB-NCH MPS-OFF VERTICAL   (REUV53)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.936 BETA (1) = -.006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.3587	.2897	.2597	.3674	.3280
.025	-.1552	-.3786	-.3984	-.4355	-.4726
.050	-.0271	-.2125	-.3378	-.3007	-.3775
.150	-.1122	.0000	-.1731	-.1607	-.1945
.300	-.2338	-.3207	-.1811	-.2249	-.2588
.520	-.3119	-.2836	-.3244	-.3031	-.4193
.750	-.2527	-.2812	-.4751	-.3235	-.2138
.900		-.2542	-.2281	-.2775	-.1227

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV54)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB = 8.000   ELV-OB = 4.000
LREF = 1290.3000 IN.   YMRP = .0000 IN. YT   RUDDER = .000   MACH = 1.100
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL = 1.000
SCALE = .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.149 BETA (1) = .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7245	.5947	.5608	.5908	.5684
.025	.1793	.0040	-.1559	-.1985	-.2504
.050	.3630	.0398	-.1390	-.1312	-.1813
.150	.2396	.0000	.0620	.0637	.0262
.300	.1085	.0451	.0412	.0052	-.0170
.520	-.0536	-.0636	-.0746	-.0511	-.1365
.750	-.3518	-.6700	-.6865	-.7050	-.7144
.900		-.3796	-.6733	-.6963	-.6522

ALPHA (2) = -.315 BETA (1) = -4.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6026	.5279	.4808	.4559	.4134
.025	-.1401	-.3547	-.5513	-.7338	-.8800
.050	-.1728	-.3654	-.5461	-.7270	-.8420
.150	-.0183	.0000	-.5217	-.5692	-.7446
.300	-.0628	-.1803	-.4225	-.4515	-.4370
.520	-.2423	-.2448	-.3202	-.4092	-.3426
.750	-.4050	-.5870	-.7255	-.7300	-.7669
.900		-.4425	-.7352	-.7183	-.7066

ALPHA (2) = -.327 BETA (2) = .006

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7029	.5649	.5020	.5242	.5093
.025	.1100	-.0290	-.1703	-.2056	-.2515
.050	.3211	.0008	-.1440	-.1389	-.1767
.150	.2135	.0000	.0283	.0419	-.0032
.300	.0848	.0247	.0097	-.0118	-.0393
.520	-.0741	-.0858	-.0947	-.0758	-.1580
.750	-.3530	-.6555	-.6807	-.7007	-.7155
.900		-.3709	-.6643	-.6914	-.6611

ALPHA (2) = -.288 BETA (3) = 4.016

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6013	.4462	.3455	.3838	.3655
.025	.4903	.3651	.2457	.2529	.2599
.050	.4835	.3495	.2726	.2548	.2126
.150	.3465	.0000	.2232	.2149	.1447
.300	.2044	.1696	.1469	.1178	.0417
.520	.0388	.0076	-.0086	.0098	-.1388
.750	-.3573	-.5875	-.6330	-.6731	-.7216
.900		-.3822	-.5885	-.6466	-.7020

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV54)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.915 BETA (1) = -.003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6759	.4967	.4068	.4243	.4075
.025	.0745	-.0780	-.2180	-.2446	-.2657
.050	.2623	-.0706	-.1937	-.1773	-.1975
.150	.1509	.0000	-.0423	-.0203	-.0556
.300	.0147	-.0472	-.0554	-.0615	-.0950
.520	-.1410	-.1477	-.1480	-.1236	-.2082
.750	-.3823	-.6799	-.7008	-.7170	-.7402
.900		-.4102	-.6853	-.7075	-.6970

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV55)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000   Z/BV   .158   .316   .600   .840   .925
                                              X/CV
                                               .000   .7763   .6584   .6164   .6365   .6263
                                               .025   .2042   .0712   -.0630   -.1047   -.1197
                                               .050   .3618   .0992   -.0463   -.0530   -.0579
                                               .150   .3293   .0000   .1241   .1435   .1068
                                               .300   .1954   .1262   .1037   .1066   .0856
                                               .520   .0227   .0228   .0319   .0593   -.0049
                                               .750   -.2764   -.4991   -.4859   -.4930   -.5086
                                               .900   -.3013   -.4792   -.4948   -.4705

ALPHA (2) = -.369   BETA (1) = -4.000   Z/BV   .158   .316   .600   .840   .925
                                              X/CV
                                               .000   .6559   .5899   .5512   .5321   .4975
                                               .025   -.1116   -.2288   -.4127   -.6573   -.6581
                                               .050   -.1271   -.2361   -.4110   -.6118   -.6549
                                               .150   -.0349   .0000   -.3682   -.5083   -.5757
                                               .300   .0721   -.0961   -.2741   -.2765   -.4378
                                               .520   -.1232   -.1467   -.2132   -.2272   -.1805
                                               .750   -.3062   -.5346   -.5386   -.5563   -.5590
                                               .900   -.3404   -.5543   -.5425   -.5407

ALPHA (2) = -.309   BETA (2) =   .012   Z/BV   .158   .316   .600   .840   .925
                                              X/CV
                                               .000   .7175   .6074   .5485   .5612   .5542
                                               .025   .1277   .0261   -.0998   -.1421   -.1536
                                               .050   .2957   .0473   -.0878   -.0878   -.0982
                                               .150   .2732   .0000   .0771   .0954   .0662
                                               .300   .1487   .0792   .0545   .0612   .0415
                                               .520   -.0202   -.0226   -.0124   .0191   -.0406
                                               .750   -.2873   -.5151   -.4990   -.5030   -.5232
                                               .900   -.3152   -.4930   -.5027   -.4947

ALPHA (2) = -.300   BETA (3) = 4.022   Z/BV   .158   .316   .600   .840   .925
                                              X/CV
                                               .000   .6445   .5121   .4273   .4631   .4578
                                               .025   .4790   .3934   .2753   .3043   .3247
                                               .050   .5028   .3864   .3187   .3115   .2933
                                               .150   .3915   .0000   .2777   .2882   .2309
                                               .300   .2626   .2184   .2177   .2152   .1471
                                               .520   .0902   .0897   .0988   .1238   -.0057
                                               .750   -.2863   -.4542   -.4564   -.4822   -.5267
                                               .900   -.2977   -.4290   -.4721   -.5229
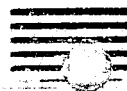
ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV55)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.966 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7054	.5406	.4555	.4591	.4554
.025	.0382	-.0181	-.1314	-.1683	-.1773
.050	.2738	-.0099	-.1181	-.1139	-.1092
.150	.2059	.0000	.0234	.0442	.0255
.300	.0882	.0261	.0073	.0097	-.0115
.520	-.0686	-.0727	-.0621	-.0329	-.0907
.750	-.3059	-.5459	-.5269	-.5316	-.5545
.900		-.3339	-.5212	-.5286	-.5301

ARC11-014IA19 OTS   SRB-NOM MPS-OFF VERTICAL   (REUV56)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.071 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7774	.7211	.6633	.6777	.6721
.025	.2187	.1415	.0114	-.0428	-.0539
.050	.2883	.1585	.0314	.0115	-.0088
.150	.3833	.0000	.1938	.1993	.1612
.300	.2524	.1908	.1626	.1756	.1530
.520	.0873	.0840	.0983	.1299	.0843
.750	-.2278	-.3683	-.3455	-.3470	-.3661
.900		-.2763	-.3462	-.3520	-.3449

ALPHA (2) = -.294 BETA (1) = -4.000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6807	.6238	.5954	.5831	.5521
.025	-.1304	-.1345	-.3246	-.4900	-.4821
.050	-.1401	-.1393	-.3235	-.4790	-.5178
.150	-.0522	.0000	-.2693	-.3987	-.4076
.300	.1513	-.0629	-.1611	-.2562	-.3203
.520	-.0356	-.0623	-.1337	-.1276	-.1200
.750	-.2583	-.4200	-.4121	-.4276	-.4036
.900		-.2866	-.4183	-.4102	-.4031

ALPHA (2) = -.375 BETA (2) =   .009

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7018	.6600	.5865	.5991	.5962
.025	.1181	.0932	-.0252	-.0771	-.0835
.050	.2072	.0926	-.0107	-.0171	-.0338
.150	.3238	.0000	.1436	.1550	.1265
.300	.2000	.1444	.1170	.1206	.1082
.520	.0481	.0444	.0529	.0895	.0438
.750	-.2439	-.3853	-.3666	-.3628	-.3853
.900		-.2882	-.3668	-.3662	-.3703

ALPHA (2) = -.423 BETA (3) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6772	.5551	.4909	.5182	.5249
.025	.4857	.4500	.3308	.3402	.3865
.050	.5158	.4319	.3698	.3651	.3687
.150	.4238	.0000	.3283	.3422	.3057
.300	.3091	.2606	.2718	.2879	.2362
.520	.1501	.1546	.1791	.2189	.1075
.750	-.2319	-.3303	-.3127	-.3235	-.3663
.900		-.2995	-.2995	-.3213	-.3663

ARC11-014IA19 OTS   SRB-NOM HFS-OFF VERTICAL   (REUV56)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.834 BETA (1) = -.003

Z/BV X/CV	.158	.316	.600	.840	.925
.000	.6660	.5788	.4991	.5027	.5013
.025	-.0181	.0324	-.0663	-.1105	-.1196
.050	.2097	.0294	-.0532	-.0613	-.0617
.150	.2211	.0000	.0878	.1039	.0988
.300	.1409	.0838	.0614	.0682	.0583
.520	-.0034	-.0065	.0044	.0434	-.0079
.750	-.2337	-.4173	-.3900	-.3852	-.4076
.900		-.2824	-.3907	-.3855	-.3961

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+VERTICAL   (REUV57)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CF

ALPHA (1) = -4.497 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7763	.6519	.6162	.6273	.6248
.025	.2080	.0670	-.0673	-.1064	-.1179
.050	.3657	.1022	-.0516	-.0569	-.0632
.150	.3236	.1994	.1239	.1388	.1032
.300	.1892	.1196	.1001	.1005	.0839
.520	.0178	.0163	.0283	.0559	-.0082
.750	-.3635	-.5083	-.4952	-.5031	-.5164
.900		-.4044	-.4884	-.5028	-.4760

ALPHA (2) = -.339 BETA (1) = -3.997

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6343	.5685	.5385	.4866	.4825
.025	-.1022	-.2405	-.4253	-.6646	-.6741
.050	-.1211	-.2633	-.4255	-.6211	-.6603
.150	-.1038	-.2334	-.3995	-.4952	-.5963
.300	.0622	-.1316	-.3096	-.3173	-.4566
.520	-.1375	-.1662	-.2508	-.2711	-.2203
.750	-.4226	-.5724	-.5455	-.5770	-.5771
.900		-.4653	-.5685	-.5507	-.5603

ALPHA (2) = -.465 BETA (2) =   .019

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7086	.5958	.5353	.5423	.5377
.025	.1150	.0190	-.1040	-.1429	-.1553
.050	.2819	.0483	-.0890	-.0927	-.0913
.150	.2645	.1641	.0710	.0893	.0622
.300	.1440	.0705	.0440	.0495	.0331
.520	-.0224	-.0295	-.0193	.0104	-.0491
.750	-.3841	-.5259	-.5099	-.5155	-.5361
.900		-.4313	-.5045	-.5153	-.5042

ALPHA (2) = -.435 BETA (3) = 4.031

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6322	.4899	.4197	.4435	.4388
.025	.5108	.4210	.2962	.3141	.3481
.050	.5189	.4015	.3285	.3168	.3018
.150	.4039	.3192	.2793	.2879	.2360
.300	.2655	.2182	.2174	.2132	.1492
.520	.1925	.0926	.0950	.1239	-.0058
.750	-.3852	-.4587	-.4578	-.4831	-.5249
.900		-.3840	-.4289	-.4686	-.5197

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+VERTICAL   (REUV57)

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (3) = 3.636 BETA (1) =   .003

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7057	.5342	.4557	.4544	.4578
.025	.0265	-.0301	-.1438	-.1809	-.1846
.050	.2673	-.0232	-.1344	-.1315	-.1328
.150	.2026	.0895	.0192	.0419	.0167
.300	.0816	.0188	-.0015	.0009	-.0126
.520	-.0754	-.0772	-.0693	-.0350	-.0883
.750	-.3917	-.5516	-.5300	-.5325	-.5539
.900		-.4317	-.5264	-.5280	-.5288

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM VERTICAL   (REUV58)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .000

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7817	.7202	.6621	.6694	.6699
.025	.2188	.1559	.0158	-.0358	-.0478
.050	.3114	.1657	.0291	.0217	.0144
.150	.3862	.2618	.1959	.2007	.1669
.300	.2495	.1889	.1609	.1722	.1544
.520	.0895	.0886	.1012	.1333	.0858
.750	-.3150	-.3677	-.3447	-.3457	-.3650
.900		-.3721	-.3453	-.3500	-.3435

ALPHA (2) = -.342 BETA (1) = 4.028

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6689	.5335	.4882	.5033	.5116
.025	.5122	.4594	.3461	.3533	.3969
.050	.5298	.4384	.3785	.3691	.3692
.150	.4285	.3631	.3303	.3419	.3044
.300	.3023	.2627	.2739	.2830	.2347
.520	.1465	.1582	.1789	.2173	.1048
.750	-.3251	-.3321	-.3156	-.3293	-.3710
.900		-.3255	-.3011	-.3229	-.3714

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF VERTICAL   (REUV59)   (19 OCT 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   1.250
GIMBAL =   1.000

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7749	.6528	.6182	.6287	.6236
.025	.2161	.0791	-.0607	-.0998	-.1144
.050	.3660	.1040	-.0467	-.0485	-.0562
.150	.3286	.2053	.1280	.1444	.1065
.300	.1910	.1259	.1063	.1062	.0866
.520	.0224	.0227	.0332	.0611	-.0022
.750	-.2806	-.4982	-.4839	-.4936	-.5076
.900		-.3146	-.4773	-.4934	-.4692

ALPHA (2) = -.375 BETA (1) =   .012

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.7155	.6117	.5470	.5526	.5499
.025	.1280	.0425	-.0952	-.1281	-.1369
.050	.2886	.0658	-.0777	-.0709	-.0822
.150	.2764	.1719	.0856	.1009	.0756
.300	.1590	.0805	.0586	.0630	.0457
.520	-.0083	-.0196	-.0092	.0250	-.0363
.750	-.2817	-.5106	-.4942	-.4987	-.5189
.900		-.3199	-.4886	-.4982	-.4882

ALPHA (2) = -.333 BETA (2) = 4.031

Z/BV	.158	.316	.600	.840	.925
X/CV					
.000	.6296	.4933	.4244	.4455	.4410
.025	.5005	.4155	.2918	.3101	.3448
.050	.5147	.3957	.3239	.3132	.2966
.150	.3962	.3131	.2789	.2854	.2328
.300	.2600	.2183	.2176	.2116	.1487
.520	.0955	.0943	.0949	.1230	-.0029
.750	-.2913	-.4545	-.4536	-.4788	-.5221
.900		-.3065	-.4275	-.4660	-.5155

ARC11-014IA19 OTS+STRUT SRB-HI   MPS-NOM VERTICAL   (REUV60)   (19 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)VERTICAL   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .012   Z/BV   .158   .316   .600   .840   .925
                                               X/CV
                                                .000   .7786   .6527   .6240   .6337   .6281
                                                .025   .2006   .0709   -.0580   -.1065   -.1198
                                                .050   .3547   .0989   -.0508   -.0542   -.0622
                                                .150   .3234   .2022   .1290   .1406   .1015
                                                .300   .1866   .1259   .1041   .1051   .0843
                                                .520   .0201   .0228   .0316   .0607   -.0014
                                                .750   -.3450   -.4968   -.4840   -.4912   -.5048
                                                .900   -.3824   -.4765   -.4913   -.4670

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT01)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .000

X/L PHI	.634	.742	.851	.986
.000			.0029	-.2717
30.000		-.1136	-.0135	-.3107
60.000		-.0812	-.0139	-.2418
90.000	-.0418	-.0282	.0084	.1947
120.000		.0035	-.0216	.0205
135.000		.0124	-.0361	.2286
150.000		.0098	.0860	.1216
165.000		-.0144	.0472	-.1019
195.000			.0017	-.1614
210.000			.0736	-.0245
225.000			-.0254	.2596
240.000			-.0245	-.0155
270.000	-.0453	-.0382	-.0044	.1750
300.000			-.0085	-.1916
330.000			-.0148	-.3087

ALPHA (2) = -.216 BETA (1) = -4.006

X/L PHI	.634	.742	.851	.986
.000			.0083	-.2554
30.000		-.0839	.0034	-.2920
60.000		-.0363	.0203	-.2221
90.000	.0204	.0322	-.0256	.1259
120.000		.1150	.1395	.1742
135.000		.1291	.1330	.4920
150.000		.1567	.2894	.3682
165.000		.1128	.2408	.1190
195.000			-.0496	-.2162
210.000			-.0522	-.0923
225.000			-.0751	.1590
240.000			-.0771	-.0391
270.000	-.1098	-.1053	-.0257	.1749
300.000			-.0245	-.1891
330.000			-.0106	-.2857

ALPHA (2) = -.336 BETA (2) =   .006

X/L PHI	.634	.742	.851	.986
.000			.0149	-.2655
30.000		-.1291	-.0043	-.2943
60.000		-.0972	-.0072	-.2324
90.000	-.0547	-.0432	-.0183	.2157
120.000		.0200	.0335	.0983

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT01.)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.336 BETA (2) = .006

X/L PHI	.634	.742	.851	.986
135.000		.0285	.0052	.3409
150.000		.0340	.1289	.1411
165.000		-.0055	.0890	-.0838
195.000			.0443	-.1315
210.000			.1166	.0190
225.000			.0212	.3526
240.000			.0255	.0631
270.000	-.0545	-.0457	-.0182	.2032
300.000			-.0008	-.1951
330.000			-.0042	-.2935

ALPHA (2) = -.222 BETA (3) = 4.025

X/L PHI	.634	.742	.851	.986
.000			.0021	-.2560
30.000		-.1475	-.0142	-.2847
60.000		-.1373	-.0366	-.2240
90.000	-.1098	-.1194	-.0343	.2221
120.000		-.0947	-.0840	-.0557
135.000		-.1139	-.0834	.0665
150.000		-.1507	-.0370	-.0188
165.000		-.2205	-.0643	-.1988
195.000			.2058	.1340
210.000			.2040	.1191
225.000			.1259	.3750
240.000			.1248	.0929
270.000	.0144	.0323	-.0135	.1118
300.000			.0268	-.1847
330.000			.0013	-.2902

ALPHA (3) = 3.948 BETA (1) = .000

X/L PHI	.634	.742	.851	.986
.000			.0126	-.2486
30.000		-.1473	-.0088	-.2881
60.000		-.1141	-.0226	-.2256
90.000	-.0552	-.0651	-.0944	.1069
120.000		.0394	.0730	.1255
135.000		.0530	.0436	.4210
150.000		.0577	.1689	.1720
165.000		.0371	.1256	-.0621
195.000			.0845	-.1124
210.000			.1538	.0359
225.000			.0638	.3923
240.000			.0705	.0705
270.000	-.0552	-.0832	-.09??	.0944
300.000			-.0129	-.1855

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT01)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.948 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                               PHI
                                               330.000   -.0078 -.2859

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT02)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.176 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.2235	.0020
30.000		.0434	.2136	.0119
60.000		.0663	.2122	.1075
90.000	-.0928	.0729	.2073	.3915
120.000		.1016	.1719	.1135
135.000		.1141	.1789	.3194
150.000		.0975	.2447	.2698
165.000		.0549	.2105	.0476
195.000			.1773	.0306
210.000			.2194	.1361
225.000			.1779	.3155
240.000			.1512	.0889
270.000	-.0810	.0621	.1968	.3716
300.000			.2168	.1631
330.000			.2136	.0160

ALPHA (2) = -.294 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.1981	.0156
30.000		.0312	.2018	-.0201
60.000		.1004	.2214	.0122
90.000	.1089	.1886	.2117	.2822
120.000		.2557	.3385	.3673
135.000		.2669	.3293	.6317
150.000		.2908	.4578	.5234
165.000		.2444	.4220	.3166
195.000			.0385	-.0820
210.000			.0632	.0232
225.000			.0570	.2495
240.000			.0593	.0353
270.000	-.0771	.0214	.1459	.2346
300.000			.1592	.1331
330.000			.1841	.0097

ALPHA (2) = -.252 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.2096	.0160
30.000		-.0431	.1985	.0061
60.000		.0092	.2004	.0361
90.000	-.0051	.1083	.2301	.2747
120.000		.1536	.2227	.2207
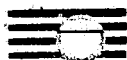
ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT02)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.252 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
135.000		.1611	.2294	.3999
150.000		.1534	.3019	.3168
165.000		.1185	.2627	.0892
195.000			.2285	.0737
210.000			.2703	.1819
225.000			.2230	.3991
240.000			.2029	.1646
270.000	.0036	.0986	.2259	.2793
300.000			.2086	.1063
330.000			.1985	.0135

ALPHA (2) = -.225 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			.1927	.0183
30.000		.0237	.1807	.0063
60.000		.0143	.1427	.0912
90.000	-.0755	.0018	.1140	.2497
120.000		-.0108	.0066	.0227
135.000		-.0494	-.0185	.2143
150.000		-.1019	-.0351	.0213
165.000		-.1153	-.0429	-.1078
195.000			.3843	.3133
210.000			.4250	.3155
225.000			.3181	.5080
240.000			.2996	.2928
270.000	.1120	.1814	.2091	.2735
300.000			.2224	.0479
330.000			.2004	-.0178

ALPHA (3) = 4.026 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.1772	.0120
30.000		-.0376	.1671	-.0188
60.000		.0239	.1612	-.0070
90.000	.0854	.1169	.1492	.2554
120.000		.1888	.2766	.2889
135.000		.2017	.2728	.4477
150.000		.2013	.3366	.3319
165.000		.1792	.3049	.1069
195.000			.2759	.1066
210.000			.3166	.1904
225.000			.2702	.3655
240.000			.2601	.2160
270.000	.0903	.1128	.1480	.2473
300.000			.1659	.0232

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT02)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 4.026 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                                PHI
                                                330.000   .1670 -.0130

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT03)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.382 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.0586	.0658
30.000		-.1955	.0117	.0488
60.000		-.1235	-.0156	.0375
90.000	-.0606	-.0972	.0378	.2762
120.000		-.0659	.0408	.2647
135.000		-.0656	-.0154	.4116
150.000		-.0763	.1841	.3305
165.000		-.2009	.1648	.1365
195.000			.0881	.0458
210.000			.1385	.1469
225.000			-.0409	.3579
240.000			-.0223	.2081
270.000	-.0643	-.0878	.0209	.2652
300.000			-.0198	.0653
330.000			.0071	.0559

ALPHA (2) = -.291 BETA (1) = -3.997

X/L	.634	.742	.851	.986
PHI				
.000			.1859	.0968
30.000		-.0954	.1859	.0644
60.000		-.0218	.2142	.0962
90.000	.0410	.0103	.1285	.3366
120.000		.0894	.3505	.4858
135.000		.0970	.3346	.6382
150.000		.0962	.4455	.5817
165.000		.0050	.4240	.3983
195.000			-.0189	-.0946
210.000			.0047	-.0065
225.000			-.0697	.2800
240.000			-.1121	.1709
270.000	-.1341	-.2167	.0161	.3863
300.000			.0939	.0797
330.000			.1885	.0883

ALPHA (2) = -.177 BETA (2) =   .016

X/L	.634	.742	.851	.986
PHI				
.000			.1835	.0729
30.000		-.1905	.1965	.0721
60.000		-.1241	.1176	.0831
90.000	-.0550	-.1082	.0616	.4282
120.000		-.0673	.1670	.3278

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT03)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.177 BETA (2) =   .016

X/L	.634	.742	.851	.986
PHI				
135.000		-.0492	.1420	.4915
150.000		-.0616	.2637	.3887
165.000		-.1841	.2363	.1837
195.000			.1588	.0992
210.000			.2022	.2068
225.000			.1177	.4152
240.000			.1161	.2669
270.000	-.0657	-.1024	.0392	.4554
300.000			.1114	.1034
330.000			.1923	.0782

ALPHA (2) = -.366 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			.1768	.0986
30.000		-.2656	.1746	.0782
60.000		-.2173	.0926	.0583
90.000	-.1099	-.2443	.0011	.3558
120.000		-.2070	-.1136	.1498
135.000		-.1433	-.1367	.1878
150.000		-.1369	-.0456	.0246
165.000		-.1651	-.0845	-.1060
195.000			.3646	.3838
210.000			.3825	.3558
225.000			.3148	.5214
240.000			.2873	.4006
270.000	.0338	.0178	.1134	.3260
300.000			.2073	.1157
330.000			.1767	.0667

ALPHA (3) = 3.843 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.2491	.0959
30.000		-.1836	.2219	.0607
60.000		-.1110	.2032	.0952
90.000	-.0302	-.1106	.0990	.3264
120.000		-.0365	.2789	.3582
135.000		-.0146	.2787	.4722
150.000		-.0535	.3389	.4237
165.000		-.1477	.3074	.2147
195.000			.2424	.1501
210.000			.2790	.2522
225.000			.2490	.4080
240.000			.2497	.2884
270.000	-.0620	-.1136	.0688	.3386
300.000			.2018	.1094

ARC11-014!IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT03)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.843 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                              PHI
                                              330.000   .2192   .0669

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT04)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			-.0012	.0103
30.000		-.1456	-.0479	.0106
60.000		-.0753	-.0732	.0432
90.000	-.0236	-.0561	-.0191	.4771
120.000		-.0452	-.0077	.3297
135.000		-.0779	-.2033	.4914
150.000		-.1159	.1847	.3992
165.000		-.1259	.1591	.2066
195.000			.0839	.0971
210.000			.1110	.1852
225.000			-.0480	.3599
240.000			-.0088	.2596
270.000	-.0779	-.0704	-.0510	.4943
300.000			-.0662	.0489
330.000			-.0454	.0022

ALPHA (2) = -.204 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			-.1841	.0415
30.000		-.0675	-.0217	.0104
60.000		.0038	.0308	.0425
90.000	.0111	.0032	.0214	.3025
120.000		.1256	.3143	.5323
135.000		.1335	.2954	.5854
150.000		.1334	.3999	.6431
165.000		.1269	.3884	.4985
195.000			-.0133	-.0653
210.000			-.0017	.0080
225.000			-.0909	.2771
240.000			-.0918	.2183
270.000	-.0884	-.1545	-.1040	.3471
300.000			-.1389	.0354
330.000			-.0542	.0422

ALPHA (2) = -.306 BETA (2) =   .016

X/L	.634	.742	.851	.986
PHI				
.000			.0007	.0251
30.000		-.1462	-.0385	.0341
60.000		-.0802	-.0564	.0446
90.000	-.0242	-.0652	-.0187	.3677
120.000		-.0171	.1218	.3945

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT04)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.306 BETA (2) = .016

X/L	.634	.742	.851	.986
PHI				
135.000		-.0427	-.0474	.5177
150.000		-.0728	.2439	.4384
165.000		-.1058	.2194	.2473
195.000			.1406	.1491
210.000			.1688	.2350
225.000			.0583	.4000
240.000			.0563	.3041
270.000	-.0495	-.0751	-.0739	.3978
300.000			-.0605	.0620
330.000			-.0363	.0285

ALPHA (2) = -.267 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			-.0001	.0458
30.000		-.2075	-.0572	.0412
60.000		-.1492	-.1497	.0164
90.000	-.0592	-.1574	-.0844	.2846
120.000		-.1874	-.0465	.1941
135.000		-.1922	-.1154	.2029
150.000		-.2053	.0262	.1105
165.000		-.2851	-.0131	-.0383
195.000			.3372	.4621
210.000			.3559	.4067
225.000			.2754	.4502
240.000			.2757	.4230
270.000	.0051	-.0031	-.0384	.2383
300.000			.0259	.0594
330.000			-.0160	.0109

ALPHA (3) = 4.392 BETA (1) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.0300	.1661
30.000		-.1499	-.0064	.1330
60.000		-.0791	-.0213	.0635
90.000	.0097	-.0826	-.0787	.1604
120.000		-.0013	.2213	.4166
135.000		.0071	.1447	.5307
150.000		-.0062	.3177	.4609
165.000		-.0697	.2867	.2689
195.000			.2329	.2104
210.000			.2608	.2985
225.000			.2077	.4221
240.000			.2091	.3428
270.000	-.0090	-.0993	-.1271	.1447
300.000			-.0192	.0710

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT04)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 4.392 BETA (1) =   .012   X/L   .634   .742   .851   .986
                                                PHI
                                                330.000   -.0082   .1366

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT05)   (28 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.119 BETA (1) = -.006   X/L   .634   .742   .851   .986
                                                PHI
                                                 .000   .0046   -.2706
                                               30.000   -.1128   -.0106   -.3096
                                               60.000   -.0802   -.0149   -.2454
                                               90.000   -.0482   -.0291   .0105   .1878
                                              120.000   .0031   -.0224   .0212
                                              135.000   .0116   -.0360   .2301
                                              150.000   .0138   .0896   .1240
                                              165.000   -.0131   .0464   -.1186
                                              195.000   .0020   -.1690
                                              210.000   .0784   -.0252
                                              225.000   -.0224   .2583
                                              240.000   -.0620   -.0208
                                              270.000   -.0506   -.0368   -.0030   .1732
                                              300.000   -.0093   -.1950
                                              330.000   -.0142   -.3088

ALPHA (2) = -.306 BETA (1) = -4.000   X/L   .634   .742   .851   .986
                                                PHI
                                                 .000   .0126   -.2426
                                               30.000   -.0816   .0099   -.2829
                                               60.000   -.0338   .0257   -.2227
                                               90.000   .0221   .0362   -.0136   .1325
                                              120.000   .1181   .1436   .1787
                                              135.000   .1294   .1378   .4949
                                              150.000   .1584   .2944   .3692
                                              165.000   .1140   .2478   .1170
                                              195.000   -.0498   -.2197
                                              210.000   -.0498   -.0884
                                              225.000   -.0764   .1626
                                              240.000   -.0992   -.0321
                                              270.000   -.1076   -.0990   -.0195   .1743
                                              300.000   -.0203   -.1788
                                              330.000   -.0070   -.2754

ALPHA (3) = -.264 BETA (2) =   .016   X/L   .634   .742   .851   .986
                                                PHI
                                                 .000   .0166   -.2599
                                               30.000   -.1309   -.0035   -.2893
                                               60.000   -.0957   -.0076   -.2409
                                               90.000   -.0578   -.0441   -.0106   .2091
                                              120.000   .0172   .0334   .0911

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT05)

SECTION (1) EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.264 BETA (2) = .016

X/L	.634	.742	.851	.986
PHI				
135.000		.0282	.0052	.3447
150.000		.0302	.1344	.1580
165.000		.0054	.0915	-.0933
195.000			.0351	-.1536
210.000			.1070	.0044
225.000			.0145	.3470
240.000			-.0221	.0553
270.000	-.0639	-.0496	-.0189	.2020
300.000			-.0062	-.1986
330.000			-.0062	-.2887

ALPHA (2) = -.348 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			-.0198	-.2811
30.000		-.1540	-.0369	-.3128
60.000		-.1462	-.0578	-.2421
90.000	-.1192	-.1347	-.0544	.2368
120.000		-.1049	-.1089	-.0600
135.000		-.1210	-.1087	.0610
150.000		-.1564	-.0568	-.0221
165.000		-.2280	-.0851	-.2147
195.000			.1880	.1060
210.000			.2458	.0935
225.000			.1140	.3570
240.000			.0751	.0692
270.000	.0089	.0193	-.0360	.0976
300.000			.0097	-.2109
330.000			-.0177	-.3160

ALPHA (3) = 3.924 BETA (1) = .000

X/L	.634	.742	.851	.986
PHI				
.000			.0086	-.2463
30.000		-.1591	-.0091	-.2895
60.000		-.1260	-.0233	-.2383
90.000	-.0559	-.0709	-.0972	.0961
120.000		.0349	.0693	.1215
135.000		.0508	.0469	.4189
150.000		.0565	.1677	.1623
165.000		.0315	.1278	-.0861
195.000			.0800	-.1187
210.000			.1510	.0298
225.000			.0603	.3965
240.000			.0272	.0743
270.000	-.0585	-.0849	-.1032	.0961
300.000			-.0199	-.1947

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT05)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.924 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   -.0112 -.2857

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT06)   (22 OCT 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-CB =   4.000
RUDDER =   .000   MACH   =   1.100
GIMBAL =   1.000

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.074 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.2272	.0049
30.000		.0429	.2173	.0154
60.000		.0653	.2169	.1162
90.000	-.0905	.0765	.2121	.4048
120.000		.1059	.1778	.1193
135.000		.1179	.1835	.3209
150.000		.1037	.2503	.2796
165.000		.0657	.2149	.0547
195.000			.1776	.0352
210.000			.2210	.1346
225.000			.1789	.3142
240.000			.1518	.0920
270.000	-.0853	.0613	.1984	.3776
300.000			.2198	.1663
330.000			.2156	.0194

ALPHA (2) = -.396 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.2019	.0194
30.000		.0332	.2058	-.0160
60.000		.1026	.2257	.0173
90.000	.1075	.1907	.2199	.2886
120.000		.2546	.3378	.3672
135.000		.2668	.3283	.6323
150.000		.2904	.4561	.5252
165.000		.2434	.4225	.3170
195.000			.0377	-.0748
210.000			.0648	.0291
225.000			.0621	.2513
240.000			.0588	.0359
270.000	-.0773	.0240	.1509	.2374
300.000			.1661	.1407
330.000			.1895	.0149

ALPHA (2) = -.408 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.2101	.0172
30.000		-.0442	.1996	.0082
60.000		.0066	.2026	.0457
90.000	-.0124	.1008	.2333	.2697
120.000		.1472	.2238	.2183

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT06)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.408 BETA (2) =   .009

X/L PHI	.634	.742	.851	.986
135.000		.1568	.2294	.4000
150.000		.1467	.2975	.3211
165.000		.1139	.2619	.0929
195.000			.2306	.0709
210.000			.2682	.1784
225.000			.2226	.4013
240.000			.2037	.1642
270.000	-.0038	.0925	.2272	.2858
300.000			.2102	.1086
330.000			.2022	.0153

ALPHA (2) = -.339 BETA (3) = 4.028

X/L PHI	.634	.742	.851	.986
.000			.1960	.0215
30.000		.0229	.1851	.0110
60.000		.0181	.1471	.1005
90.000	-.0782	.0029	.1147	.2560
120.000		-.0139	.0077	.0209
135.000		-.0486	-.0124	.2164
150.000		-.0999	-.0292	.0249
165.000		-.1110	-.0416	-.1006
195.000			.3841	.3111
210.000			.4253	.3171
225.000			.3202	.5084
240.000			.2968	.2967
270.000	.1125	.1845	.2145	.2785
300.000			.2264	.0532
330.000			.2038	-.0144

ALPHA (3) = 3.984 BETA (1) =   .003

X/L PHI	.634	.742	.851	.986
.000			.1772	.0136
30.000		-.0363	.1694	-.0186
60.000		.0260	.1646	-.0031
90.000	.0813	.1157	.1433	.2683
120.000		.1848	.2801	.2993
135.000		.1998	.2796	.4524
150.000		.1983	.3424	.3372
165.000		.1741	.3081	.1099
195.000			.2768	.1126
210.000			.3175	.1956
225.000			.2739	.3622
240.000			.2547	.2209
270.000	.0852	.1098	.1459	.2539
300.000			.1666	.0264

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT06)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.984 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                            PHI
                                            330.000   .1686 -.0118

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT07)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.131 BETA (1) =   .003

X/L PHI	.634	.742	.851	.986
.000			.0130	.0660
30.000		-.1943	-.0274	.0569
60.000		-.1218	-.0413	.0373
90.000	-.0614	-.0975	.0225	.2711
120.000		-.0662	.0271	.2661
135.000		-.0681	-.0272	.4131
150.000		-.0706	.1856	.3462
165.000		-.1991	.1659	.1434
195.000			.0886	.0531
210.000			.1353	.1467
225.000			-.0450	.3543
240.000			-.0238	.2097
270.000	-.0621	-.0911	.0170	.2624
300.000			-.0328	.0615
330.000			-.0276	.0633

ALPHA (2) = -.300 BETA (1) = -4.000

X/L PHI	.634	.742	.851	.986
.000			.1788	.1016
30.000		-.0960	.1965	.0714
60.000		-.0234	.2125	.0991
90.000	.0371	.0139	.1117	.3307
120.000		.0909	.3408	.4878
135.000		.0982	.3220	.6426
150.000		.0971	.4413	.5882
165.000		.0131	.4176	.4019
195.000			-.0145	-.0905
210.000			.0029	-.0065
225.000			-.0733	.2802
240.000			-.1234	.1731
270.000	-.1314	-.2150	-.0077	.3897
300.000			.0720	.0829
330.000			.1569	.0937

ALPHA (2) = -.411 BETA (2) =   .012

X/L PHI	.634	.742	.851	.986
.000			.1719	.0842
30.000		-.1860	.1689	.0867
60.000		-.1193	.1031	.0898
90.000	-.0542	-.1080	.0503	.4287
120.000		-.0658	.1654	.3323

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT07)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.411 BETA (2) = .012

X/L PHI	.634	.742	.851	.986
135.000		-.0492	.1298	.4944
150.000		-.0500	.2656	.3974
165.000		-.1769	.2393	.1908
195.000			.1637	.1077
210.000			.2015	.2164
225.000			.1169	.4251
240.000			.1063	.2757
270.000	-.0640	-.1036	.0181	.4528
300.000			.0837	.1091
330.000			.1568	.0882

ALPHA (2) = -.438 BETA (3) = 4.031

X/L PHI	.634	.742	.851	.986
.000			.1691	.0987
30.000		-.2643	.1504	.0841
60.000		-.2158	.0663	.0617
90.000	-.1087	-.2442	-.0088	.3475
120.000		-.2290	-.1152	.1587
135.000		-.1518	-.1403	.1901
150.000		-.1513	-.0361	.0326
165.000		-.1699	-.0749	-.0944
195.000			.3551	.3817
210.000			.3770	.3636
225.000			.3019	.5008
240.000			.2812	.3951
270.000	.0299	.0104	.1078	.3268
300.000			.2068	.1160
330.000			.1860	.0714

ALPHA (3) = 3.582 BETA (1) = .003

X/L PHI	.634	.742	.851	.986
.000			.2448	.0982
30.000		-.1844	.2238	.0673
60.000		-.1145	.2006	.1023
90.000	-.0374	-.1260	.0764	.3328
120.000		-.0438	.2682	.3610
135.000		-.0260	.2682	.4733
150.000		-.0629	.3320	.4180
165.000		-.1562	.2988	.2115
195.000			.2349	.1540
210.000			.2716	.2559
225.000			.2413	.4075
240.000			.2256	.2922
270.000	-.0624	-.1191	.0554	.3434
300.000			.1999	.1143

ARC11-014IA19 OTS+STRUT SRB-NOM HPS-NOM EXT TANK   (REUT07)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.582 BETA (1) =   .003   . X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   .2239   .0706

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT08)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP =	976.0000 IN. XT			ELV-IB =	8.000	ELV-OB = 4.000
LREF = 1290.3000 IN.	YMRP =	.0000 IN. YT			RUDDER =	.000	MACH = 1.400
BREF = 1290.3000 IN.	ZMRP =	400.0000 IN. ZT			GIMBAL =	1.000	
SCALE = .0200							

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) =   .006

X/L	.634	.742	.851	.986
PHI				
.000			-.0027	.0094
30.000		-.1435	-.0474	.0001
60.000		-.0780	-.0741	.0296
90.000	-.0253	-.0569	-.0118	.4821
120.000		-.0475	.0131	.2885
135.000		-.0817	-.0855	.4489
150.000		-.1196	.1865	.3989
165.000		-.1261	.1637	.2164
195.000			.0825	.0959
210.000			.1084	.1821
225.000			-.0502	.3561
240.000			-.0129	.2615
270.000	-.0777	-.0696	-.0485	.4860
300.000			-.0681	.0468
330.000			-.0483	-.0008

ALPHA (2) = -.486 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			-.0063	.0350
30.000		-.0702	-.0261	.0100
60.000		.0009	.0246	.0432
90.000	.0076	.0023	.0211	.3062
120.000		.1237	.3099	.5246
135.000		.1271	.2877	.5811
150.000		.1265	.3881	.6369
165.000		.1206	.3775	.4930
195.000			-.0130	-.0614
210.000			-.0036	.0112
225.000			-.0960	.2739
240.000			-.0990	.2157
270.000	-.0916	-.1557	-.1050	.3424
300.000			-.1438	.0323
330.000			-.0560	.0347

ALPHA (2) = -.438 BETA (2) =   .016

X/L	.634	.742	.851	.986
PHI				
.000			-.0011	.0201
30.000		-.1491	-.0402	.0297
60.000		-.0811	-.0622	.0457
90.000	-.0267	-.0675	-.0176	.3874
120.000		-.0227	.1133	.3897

DATE 01 MAY 75   TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT08)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.438 BETA (2) =   .016

X/L	.634	.742	.851	.986
PHI				
135.000		-.0495	-.0516	.5178
150.000		-.0763	.2392	.4346
165.000		-.1153	.2136	.2394
195.000			.1410	.1599
210.000			.1654	.2370
225.000			.0515	.3976
240.000			.0754	.3026
270.000	-.0532	-.0735	-.0705	.4053
300.000			-.0645	.0588
330.000			-.0399	.0269

ALPHA (2) = -.456 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			-.0020	.0386
30.000		-.2142	-.0589	.0339
60.000		-.1533	-.1561	.0151
90.000	-.0638	-.1620	-.0886	.2847
120.000		-.1941	-.0528	.1856
135.000		-.1983	-.1176	.1937
150.000		-.2145	.0206	.0978
165.000		-.2915	-.0221	-.0368
195.000			.3270	.4476
210.000			.3488	.3937
225.000			.2637	.4398
240.000			.2381	.4089
270.000	-.0017	-.0069	-.0396	.2404
300.000			.0189	.0560
330.000			-.0253	.0056

ALPHA (3) = 4.014 BETA (1) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0166	.1562
30.000		-.1577	-.0182	.1298
60.000		-.0862	-.0311	.0737
90.000	.0040	-.0897	-.0736	.1623
120.000		-.0089	.2139	.4142
135.000		-.0083	.1187	.5321
150.000		-.0233	.3116	.4630
165.000		-.0805	.2823	.2720
195.000			.2224	.2068
210.000			.2478	.2912
225.000			.1925	.4198
240.000			.1797	.3399
270.000	-.0151	-.1057	-.1274	.1451
300.000			-.0346	.0554

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT08)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 4.014 BETA (1) =   .009   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   -.0222   .1318

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT09)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL = 1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) = .000   X/L   .634   .742   .851   .986
                                          PHI
                                           .000   -.0025 -.2831
                                         30.000   -.1191 -.0224 -.2966
                                         60.000   -.0870 -.0228 -.2114
                                         90.000   -.0527 -.0390 -.0043   .1852
                                        120.000   -.0053 -.0402   .0132
                                        135.000   .0045 -.0585   .2761
                                        150.000   .0039   .0818   .1205
                                        165.000   -.0234   .0388 -.1131
                                        195.000   -.0061 -.1803
                                        210.000   .0687 -.0324
                                        225.000   -.0326 -.2490
                                        240.000   -.0715 -.0304
                                        270.000   -.0472 -.0442 -.0121   .1715
                                        300.000   -.0109 -.2026
                                        330.000   -.0190 -.3164

ALPHA (2) = -.438 BETA (1) = -4.000   X/L   .634   .742   .851   .986
                                          PHI
                                           .000   .0053 -.2548
                                         30.000   -.0894   .0018 -.2675
                                         60.000   -.0378   .0198 -.1927
                                         90.000   .0208   .0316 -.0141   .1187
                                        120.000   .1081   .1299   .1635
                                        135.000   .1198   .1031   .5037
                                        150.000   .1480   .2867   .3764
                                        165.000   .1025   .2394   .1141
                                        195.000   -.0565 -.2262
                                        210.000   -.0451 -.0932
                                        225.000   -.0821   .1565
                                        240.000   -.1071 -.0392
                                        270.000   -.1103 -.1067 -.0269   .1823
                                        300.000   -.0251 -.1871
                                        330.000   -.0135 -.2807

ALPHA (2) = -.525 BETA (2) = -.003   X/L   .634   .742   .851   .986
                                          PHI
                                           .000   .0283 -.2538
                                         30.000   -.1294   .0108 -.2609
                                         60.000   -.0931   .0088 -.1988
                                         90.000   -.0547 -.0422 -.0034   .2151
                                        120.000   .0159   .0363   .0913

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT09)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.525 BETA (2) = -.003

X/L	.634	.742	.851	.986
PHI				
135.000		.0302	-.0014	.3849
150.000		.0316	.1429	.1481
165.000		.0097	.1012	-.0920
195.000			.0503	-.1317
210.000			.1208	.0261
225.000			.0279	.3589
240.000			-.0096	.0677
270.000	-.0571	-.0454	-.0119	.2229
300.000			.0099	-.1850
330.000			.0050	-.2777

ALPHA (2) = -.441 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			.0056	-.2564
30.000		-.1479	-.0105	-.2631
60.000		-.1414	-.0356	-.1844
90.000	-.1133	-.1245	-.0348	.2266
120.000		-.0990	-.0871	-.0663
135.000		-.1185	-.0958	.1112
150.000		-.1534	-.0424	-.0256
165.000		-.2180	-.0700	-.2056
195.000			.2021	.1302
210.000			.2625	.1193
225.000			.1243	.3757
240.000			.0887	.0949
270.000	.0149	.0298	-.0117	.1233
300.000			.0280	-.1846
330.000			-.0006	-.2832

ALPHA (3) = 4.050 BETA (1) = .006

X/L	.634	.742	.851	.986
PHI				
.000			.0259	-.2350
30.000		-.1483	-.0002	-.2553
60.000		-.1163	-.0097	-.1928
90.000	-.0556	-.0659	-.0831	.0993
120.000		.0423	.0764	.1234
135.000		.0588	.0390	.4550
150.000		.0629	.1795	.1720
165.000		.0443	.1413	-.0672
195.000			.0907	-.1055
210.000			.1624	.0469
225.000			.0766	.4046
240.000			.0397	.0839
270.000	-.0570	-.0790	-.0891	.1142
300.000			-.0071	-.1744

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT09)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 4.050 BETA (1) =   .006   X/L   .634   .742   .851   .986
                                            PHI
                                            330.000   .0042 -.2704

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT10)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000 ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000 MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -3.978 BETA (1) = -.006   X/L   .634   .742   .851   .986
                                              PHI
                                               .000   .2263   .0048
                                             30.000   .0466   .2176   .0152
                                             60.000   .0661   .2171   .1122
                                             90.000   -.0897   .0764   .2128   .3932
                                            120.000   .1064   .1787   .1161
                                            135.000   .1169   .1823   .3231
                                            150.000   .1051   .2504   .2754
                                            165.000   .0626   .2158   .0508
                                            195.000   .1784   .0347
                                            210.000   .2211   .1368
                                            225.000   .1801   .3137
                                            240.000   .1523   .0897
                                            270.000   -.0860   .0632   .2022   .3717
                                            300.000   .2195   .1662
                                            330.000   .2170   .0192

ALPHA (2) = -.387 BETA (1) = -4.003   X/L   .634   .742   .851   .986
                                              PHI
                                               .000   .2022   .0190
                                             30.000   .0336   .2054   -.0172
                                             60.000   .1023   .2248   .0167
                                             90.000   .1056   .1895   .2184   .2932
                                            120.000   .2559   .3384   .3723
                                            135.000   .2674   .3302   .6339
                                            150.000   .2900   .4578   .5254
                                            165.000   .2440   .4233   .3170
                                            195.000   .0436   -.0776
                                            210.000   .0710   .0265
                                            225.000   .0586   .2491
                                            240.000   .0614   .0354
                                            270.000   -.0775   .0224   .1512   .2412
                                            300.000   .1663   .1380
                                            330.000   .1899   .0149

ALPHA (2) = -.429 BETA (2) =   .009   X/L   .634   .742   .851   .986
                                              PHI
                                               .000   .2082   .0172
                                             30.000   -.0434   .1988   .0082
                                             60.000   .0064   .2001   .0442
                                             90.000   -.0130   .1001   .2330   .2713
                                            120.000   .1483   .2233   .2159

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT10)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.429 BETA (2) = .009

X/L PHI	.634	.742	.851	.986
135.000		.1535	.2250	.3947
150.000		.1448	.2974	.3181
165.000		.1113	.2607	.0902
195.000			.2280	.0717
210.000			.2683	.1786
225.000			.2219	.3982
240.000			.2039	.1637
270.000	-.0016	.0926	.2272	.2797
300.000			.2104	.1048
330.000			.2029	.0159

ALPHA (2) = -.384 BETA (3) = 4.028

X/L PHI	.634	.742	.851	.986
.000			.1944	.0204
30.000		.0262	.1829	.0104
60.000		.0237	.1449	.0986
90.000	-.0774	-.0025	.1117	.2566
120.000		-.0130	.0040	.0179
135.000		-.0512	-.0118	.2152
150.000		-.1016	-.0294	.0237
165.000		-.1153	-.0413	-.1046
195.000			.3820	.3075
210.000			.4208	.3154
225.000			.3159	.5057
240.000			.2943	.2947
270.000	.1080	.1813	.2147	.2763
300.000			.2242	.0500
330.000			.2007	-.0144

ALPHA (3) = 3.930 BETA (1) = .000

X/L PHI	.634	.742	.851	.986
.000			.1764	.0126
30.000		-.0373	.1680	-.0187
60.000		.0244	.1630	-.0028
90.000	.0830	.1143	.1425	.2695
120.000		.1857	.2807	.2942
135.000		.2016	.2784	.4545
150.000		.1993	.3414	.3416
165.000		.1754	.3077	.1107
195.000			.2787	.1080
210.000			.3191	.1973
225.000			.2739	.3656
240.000			.2552	.2220
270.000	.0855	.1114	.1447	.2472
300.000			.1669	.0254

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT10)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.930 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                               PHI
                                               330.000   .1684 -.0126

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT11)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT
SCALE = .0200	

ELV-IB =	8.000	ELV-OB =	4.000
RUDDER =	.000	MACH =	1.250
GIMBAL =	1.000		

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.746 BETA (1) = .006

X/L PHI	.634	.742	.851	.986
.000			.0399	.0622
30.000		-.1998	-.0081	.0440
60.000		-.1253	-.0327	.0413
90.000	-.0611	-.1001	.0309	.2619
120.000		-.0664	.0208	.2466
135.000		-.0632	-.0257	.3978
150.000		-.0770	.1738	.3273
165.000		-.2012	.1525	.1313
195.000			.0817	.0470
210.000			.1265	.1393
225.000			-.0560	.3449
240.000			-.0364	.1946
270.000	-.0667	-.0920	.0153	.2591
300.000			-.0343	.0712
330.000			-.0136	.0540

ALPHA (2) = -.444 BETA (1) = -4.000

X/L PHI	.634	.742	.851	.986
.000			.1865	.0975
30.000		-.0939	.1876	.0577
60.000		-.0204	.2148	.0982
90.000	.0406	.0161	.1295	.3431
120.000		.0907	.3460	.4846
135.000		.0990	.3296	.6388
150.000		.0991	.4408	.5778
165.000		.0078	.4187	.3945
195.000			-.0148	-.0925
210.000			.0035	-.0061
225.000			-.0686	.2795
240.000			-.1153	.1717
270.000	-.1331	-.2164	.0168	.3786
300.000			.0910	.0821
330.000			.1841	.0904

ALPHA (2) = -.402 BETA (2) = .012

X/L PHI	.634	.742	.851	.986
.000			.1789	.0739
30.000		-.1903	.1912	.0686
60.000		-.1274	.1118	.0852
90.000	-.0558	-.1090	.0608	.4296
120.000		-.0716	.1593	.3314

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT11)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.402 BETA (2) = .012

X/L PHI	.634	.742	.851	.986
135.000		-.0522	.1258	.4940
150.000		-.0617	.2565	.3831
165.000		-.1868	.2329	.1790
195.000			.1654	.1099
210.000			.2045	.2112
225.000			.1173	.4190
240.000			.1193	.2702
270.000	-.0646	-.0982	.0392	.4551
300.000			.1076	.1043
330.000			.1884	.0803

ALPHA (2) = -.324 BETA (3) = 4.034

X/L PHI	.634	.742	.851	.986
.000			.1781	.1018
30.000		-.2648	.1752	.0794
60.000		-.2165	.0928	.0618
90.000	-.1115	-.2431	.0057	.3511
120.000		-.2030	-.1195	.1481
135.000		-.1434	-.1395	.1864
150.000		-.1389	-.0465	.0269
165.000		-.1650	-.0850	-.1031
195.000			.3672	.3867
210.000			.3871	.3710
225.000			.3147	.5168
240.000			.2882	.4005
270.000	.0341	.0240	.1182	.3342
300.000			.2116	.1192
330.000			.1797	.0706

ALPHA (3) = 3.552 BETA (1) = .003

X/L PHI	.634	.742	.851	.986
.000			.2509	.0981
30.000		-.1873	.2264	.0595
60.000		-.1132	.2070	.0999
90.000	-.0355	-.1156	.0963	.3500
120.000		-.0421	.2684	.3558
135.000		-.0204	.2695	.4769
150.000		-.0580	.3316	.4137
165.000		-.1443	.2987	.2057
195.000			.2506	.1621
210.000			.2833	.2606
225.000			.2511	.4152
240.000			.2336	.2938
270.000	-.0605	-.1104	.0699	.3472
300.000			.2050	.1161

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT11)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.552 BETA (1) = .003   X/L   .634   .742   .851   .986
                                           PHI
                                           330.000   .2229   .0713

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT12)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF	= 2690.0000 SQ.FT.	XMRP	= 976.0000 IN. XT	
LREF	= 1290.3000 IN.	YMRP	= .0000 IN. YT	
BREF	= 1290.3000 IN.	ZMRP	= 400.0000 IN. ZT	
SCALE	= .0200			

ELV-IB = 8.000   ELV-OB = 4.000
RUDDER = .000   MACH = 1.400
GIMBAL = 1.000

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) = .000

X/L	.634	.742	.851	.986
PHI				
.000			-.0038	.0080
30.000		-.1449	-.0487	-.0021
60.000		-.0774	-.0759	.0291
90.000	-.0263	-.0598	-.0139	.4824
120.000		-.0511	.0067	.2910
135.000		-.0835	-.0857	.4535
150.000		-.1213	.1847	.4021
165.000		-.1318	.1628	.2150
195.000			.0837	.1012
210.000			.1124	.1839
225.000			-.0552	.3551
240.000			-.0121	.2589
270.000	-.0777	-.0715	-.0513	.4872
300.000			-.0704	.0457
330.000			-.0488	-.0028

ALPHA (2) = -.396 BETA (1) = -4.003

X/L	.634	.742	.851	.985
PHI				
.000			-.0036	.0421
30.000		-.0649	-.0231	.0139
60.000		.0067	.0300	.0462
90.000	.0099	.0066	.0234	.3120
120.000		.1279	.3177	.5345
135.000		.1307	.2946	.5924
150.000		.1317	.3973	.6441
165.000		.1295	.3868	.4995
195.000			-.0144	-.0585
210.000			-.0031	.0125
225.000			-.1024	.2794
240.000			-.0944	.2206
270.000	-.0907	-.1538	-.1016	.3501
300.000			-.1409	.0364
330.000			-.0525	.0403

ALPHA (2) = -.378 BETA (2) = .006

X/L	.634	.742	.851	.986
PHI				
.000			.0010	.0249
30.000		-.1478	-.0394	.0356
60.000		-.0785	-.0602	.0452
90.000	-.0243	-.0645	-.0146	.3920
120.000		-.0191	.1227	.3965

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT12)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.378 BETA (2) =   .006

X/L	.634	.742	.851	.986
PHI				
135.000		-.0466	-.0368	.5260
150.000		-.0738	.2458	.4466
165.000		-.1090	.2239	.2535
195.000			.1419	.1606
210.000			.1693	.2365
225.000			.0614	.4019
240.000			.0766	.3071
270.000	-.0530	-.0737	-.0738	.4056
300.000			-.0634	.0615
330.000			-.0367	.0294

ALPHA (2) = -.315 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			.0001	.0476
30.000		-.2085	-.0569	.0393
60.000		-.1501	-.1509	.0172
90.000	-.0613	-.1593	-.0840	.2851
120.000		-.1882	-.0475	.1931
135.000		-.1966	-.1152	.2039
150.000		-.2090	.0260	.1073
165.000		-.2867	-.0140	-.0363
195.000			.3344	.4548
210.000			.3533	.4009
225.000			.2719	.4455
240.000			.2426	.4194
270.000	.0016	-.0050	-.0362	.2437
300.000			.0257	.0611
330.000			-.0200	.0116

ALPHA (3) = 4.005 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.0188	.1575
30.000		-.1557	-.0192	.1273
60.000		-.0845	-.0350	.0707
90.000	.0028	-.0880	-.0748	.1672
120.000		-.0088	.2187	.4164
135.000		-.0038	.1252	.5371
150.000		-.0276	.3136	.4649
165.000		-.0806	.2846	.2692
195.000			.2209	.2071
210.000			.2500	.2912
225.000			.1926	.4180
240.000			.1813	.3402
270.000	-.0164	-.1056	-.1261	.1454
300.000			-.0367	.0551

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT12)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 4.005 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                              PHI
                                              330.000   -.0240   .1308

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT13)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.119 BETA (1) = -.003

X/L PHI	.634	.742	.851	.986
.000			-.0142	-.2927
30.000		-.1196	-.0306	-.3322
60.000		-.0904	-.0324	-.2570
90.000	-.0425	-.0385	-.0076	.1996
120.000		-.0047	-.0378	.0282
135.000		.0035	-.0528	.2364
150.000		.0045	.0733	.1154
165.000		-.0235	.0299	-.1081
195.000			-.0095	-.1809
210.000			.0627	-.0412
225.000			-.0381	.2466
240.000			-.0777	-.0348
270.000	-.0475	-.0461	-.0187	.1604
300.000			-.0213	-.2132
330.000			-.0299	-.3323

ALPHA (2) = -.390 BETA (1) = -3.997

X/L PHI	.634	.742	.851	.986
.000			-.0005	-.2679
30.000		-.0870	-.0042	-.3064
60.000		-.0378	.0136	-.2299
90.000	.0200	.0269	-.0308	.1338
120.000		.1108	.1302	.1720
135.000		.1259	.1271	.4914
150.000		.1517	.2820	.3664
165.000		.1078	.2319	.1147
195.000			-.0518	-.2344
210.000			-.0453	-.1036
225.000			-.0806	.1491
240.000			-.1030	-.0511
270.000	-.1139	-.1151	-.0330	.1618
300.000			-.0294	-.1982
330.000			-.0163	-.2999

ALPHA (2) = -.378 BETA (2) =   .016

X/L PHI	.634	.742	.851	.986
.000			.0223	-.2521
30.000		-.1260	.0050	-.2799
60.000		-.0920	.0007	-.2267
90.000	-.0528	-.0343	-.0044	.2146
120.000		.0230	.0424	.1023

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT13)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.378 BETA (2) =   .016

X/L	.634	.742	.851	.986
PHI				
135.000		.0328	.0162	.3527
150.000		.0375	.1403	.1662
165.000		.0150	.0980	-.0791
195.000			.0444	-.1415
210.000			.1135	.0149
225.000			.0199	.3539
240.000			-.0135	.0656
270.000	-.0559	-.0410	-.0086	.2128
300.000			.0048	-.1876
330.000			.0026	-.2804

ALPHA (2) = -.327 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			-.0248	-.2890
30.000		-.1573	-.0417	-.3193
60.000		-.1469	-.0605	-.2427
90.000	-.1173	-.1307	-.0593	.2456
120.000		-.0995	-.1083	-.0577
135.000		-.1205	-.1083	.0610
150.000		-.1617	-.0625	-.0188
165.000		-.2261	-.0873	-.1757
195.000			.1902	.1092
210.000			.2532	.0918
225.000			.1123	.3520
240.000			.0769	.0648
270.000	.0112	.0176	-.0319	.0940
300.000			.0126	-.2163
330.000			-.0165	-.3221

ALPHA (3) = 3.909 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.0059	-.2654
30.000		-.1534	-.0185	-.3063
60.000		-.1200	-.0314	-.2327
90.000	-.0570	-.0721	-.1041	.1162
120.000		.0335	.0570	.1237
135.000		.0486	.0322	.4195
150.000		.0552	.1575	.1642
165.000		.0327	.1106	-.0719
195.000			.0765	-.1307
210.000			.1469	.0192
225.000			.0586	.3816
240.000			.0238	.0596
270.000	-.0594	-.0892	-.0995	.0834
300.000			-.0222	-.2042

ARC11-014IA19 OTS+STRUT SRB-NOM MFS-OFF EXT TANK   (REUT13)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.909 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                              PHI
                                              330.000   -.0136 -.3015

ARC11-014IA19 OTS+STRUT SRB-NOM HPS-OFF EXT TANK   (REUT14)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -5.142 BETA (1) = -.006

X/L	.634	.742	.851	.986
PHI				
.000			.2243	-.0031
30.000		.0355	.2145	.0054
60.000		.0610	.2144	.1298
90.000	-.1004	.0547	.1785	.4256
120.000		.0989	.1655	.1035
135.000		.1111	.1673	.2983
150.000		.0972	.2376	.2671
165.000		.0589	.2021	.0393
195.000			.1669	.0270
210.000			.2099	.1304
225.000			.1638	.3042
240.000			.1397	.0790
270.000	-.0952	.0306	.1652	.4079
300.000			.2162	.1842
330.000			.2124	.0101

ALPHA (2) = -.321 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.2012	.0178
30.000		.0330	.2043	-.0183
60.000		.1016	.2244	.0155
90.000	.1086	.1899	.2214	.2862
120.000		.2550	.3382	.3707
135.000		.2669	.3286	.6325
150.000		.2895	.4577	.5266
165.000		.2434	.4209	.3183
195.000			.0329	-.0793
210.000			.0566	.0259
225.000			.0513	.2466
240.000			.0557	.0343
270.000	-.0797	.0219	.1466	.2444
300.000			.1642	.1419
330.000			.1874	.0136

ALPHA (2) = -.432 BETA (2) =   .016

X/L	.634	.742	.851	.986
PHI				
.000			.2099	.0158
30.000		-.0448	.2003	.0076
60.000		.0056	.2038	.0476
90.000	-.0111	.1075	.2363	.2851
120.000		.1541	.2241	.2144

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT14)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.432 BETA (2) =   .016

X/L	.634	.742	.851	.986
PHI				
135.000		.1621	.2326	.3969
150.000		.1550	.3052	.3278
165.000		.1217	.2669	.0986
195.000			.2232	.0621
210.000			.2661	.1744
225.000			.2174	.3964
240.000			.1999	.1576
270.000	-.0007	.0954	.2277	.2846
300.000			.2095	.1132
330.000			.2015	.0136

ALPHA (2) = -.396 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			.1936	.0197
30.000		.0217	.1830	.0085
60.000		.0114	.1459	.0996
90.000	-.0775	.0003	.1166	.2591
120.000		-.0146	.0078	.0178
135.000		-.0492	-.0101	.2129
150.000		-.1002	-.0307	.0271
165.000		-.1134	-.0421	-.1021
195.000			.3818	.3104
210.000			.4207	.3165
225.000			.3158	.5086
240.000			.2915	.2931
270.000		.1094	.1824	.2089	.2768
300.000			.2222	.0488
330.000			.2004	-.0160

ALPHA (3) = 3.864 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.1775	.0129
30.000		-.0392	.1681	-.0189
60.000		.0227	.1632	-.0053
90.000	.0838	.1148	.1504	.2692
120.000		.1859	.2786	.2934
135.000		.2015	.2778	.4518
150.000		.1992	.3401	.3346
165.000		.1779	.3067	.1101
195.000			.2749	.1057
210.000			.3164	.1933
225.000			.2714	.3656
240.000			.2533	.2190
270.000	.0877	.1100	.1477	.2521
300.000			.1652	.0271

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT14)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.864 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   .1674 -.0118

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT15)   (22 OCT 74)

PARAMETRIC DATA

REFERENCE DATA

SREF	=	2690.0000 SQ.FT.	XMRP	=	976.0000 IN. XT	
LREF	=	1290.3000 IN.	YMRP	=	.0000 IN. YT	
BREF	=	1290.3000 IN.	ZMRP	=	400.0000 IN. ZT	
SCALE	=	.0200				

ELV-IB =	8.000	ELV-CB =	4.000
RUDDER =	.000	MACH =	1.250
GIMBAL =	1.000		

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

·ALPHA (1) = -4.113 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.0200	.0754
30.000		-.1910	-.0214	.0643
60.000		-.1194	-.0362	.0336
90.000	-.0597	-.0957	.0268	.2701
120.000		-.0632	.0364	.2699
135.000		-.0668	-.0184	.4203
150.000		-.0612	.1896	.3511
165.000		-.1962	.1686	.1502
195.000			.0861	.0569
210.000			.1339	.1469
225.000			-.0460	.3556
240.000			-.0217	.2124
270.000	-.0660	-.0893	.0136	.2709
300.000			-.0432	.0665
330.000			-.0290	.0702

ALPHA (2) = -.390 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.1798	.1006
30.000		-.0965	.1953	.0717
60.000		-.0237	.2100	.1002
90.000	.0368	.0039	.1097	.3299
120.000		.0859	.3432	.4881
135.000		.0963	.3264	.6368
150.000		.0960	.4424	.5875
165.000		.0123	.4182	.4015
195.000			-.0136	-.0879
210.000			.0050	-.0038
225.000			-.0698	.2795
240.000			-.1237	.1748
270.000	-.1311	-.2121	-.0087	.3881
300.000			.0680	.0837
330.000			.1650	.0943

ALPHA (2) = -.363 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			.1680	.0873
30.000		-.1848	.1761	.0881
60.000		-.1201	.0998	.0907
90.000	-.0555	-.1056	.0469	.4279
120.000		-.0671	.1680	.3319

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.363 BETA (2) =   .012

X/L PHI	.634	.742	.851	.986
135.000		-.0501	.1344	.4950
150.000		-.0493	.2681	.3933
165.000		-.1763	.2399	.1954
195.000			.1637	.1098
210.000			.2003	.2173
225.000			.1214	.4201
240.000			.1105	.2764
270.000	-.0652	-.1029	.0229	.4573
300.000			.0834	.1162
330.000			.1532	.0911

ALPHA (2) = -.294 BETA (3) = 4.028

X/L PHI	.634	.742	.851	.986
.000			.1756	.1038
30.000		-.2563	.1568	.0858
60.000		-.2079	.0730	.0618
90.000	-.1067	-.2375	-.0143	.3550
120.000		-.2094	-.1116	.1629
135.000		-.1525	-.1402	.1957
150.000		-.1459	-.0299	.0404
165.000		-.1669	-.0692	-.0877
195.000			.3508	.3834
210.000			.3771	.3654
225.000			.3050	.5053
240.000			.2791	.3961
270.000	.0300	.0207	.0942	.3299
300.000			.2061	.1198
330.000			.1910	.0730

ALPHA (3) = 3.834 BETA (1) =   .012

X/L PHI	.634	.742	.851	.986
.000			.2491	.1033
30.000		-.1788	.2270	.0713
60.000		-.1080	.2058	.1015
90.000	-.0327	-.1144	.0869	.3298
120.000		-.0572	.2731	.3644
135.000		-.0160	.2765	.4815
150.000		-.0544	.3372	.4190
165.000		-.1371	.3055	.2162
195.000			.2476	.1619
210.000			.2822	.2600
225.000			.2532	.4128
240.000			.0309	.2981
270.000	-.0575	-.1158	.0592	.3345
300.000			.2069	.1175

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT15)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.834 BETA (1) =   .012   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   .2243   .0725

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT16)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.095 BETA (1) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			-.0048	.0085
30.000		-.1462	-.0483	-.0031
60.000		-.0784	-.0726	.0304
90.000	-.0265	-.0603	-.0164	.4751
120.000		-.0529	.0039	.2906
135.000		-.0831	-.0921	.4445
150.000		-.1240	.1820	.3924
165.000		-.1311	.1581	.2072
195.000			.0803	.0987
210.000			.1099	.1815
225.000			-.0534	.3576
240.000			-.0166	.2578
270.000	-.0805	-.0716	-.0523	.4855
300.000			-.0681	.0451
330.000			-.0493	-.0030

ALPHA (2) = -.393 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			-.0006	.0415
30.000		-.0651	-.0221	.0144
60.000		.0054	.0301	.0472
90.000	.0088	.0059	.0248	.3096
120.000		.1281	.3143	.5330
135.000		.1332	.2980	.5911
150.000		.1326	.3965	.6420
165.000		.1270	.3883	.4985
195.000			-.0125	-.0610
210.000			-.0030	.0084
225.000			-.0947	.2764
240.000			-.0943	.2160
270.000	-.0913	-.1532	-.1025	.3452
300.000			-.1429	.0380
330.000			-.0548	.0420

ALPHA (2) = -.291 BETA (2) = -.003

X/L	.634	.742	.851	.986
PHI				
.000			-.0016	.0229
30.000		-.1480	-.0411	.0318
60.000		-.0806	-.0600	.0462
90.000	-.0252	-.0647	-.0182	.3893
120.000		-.0204	.1230	.3946

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT16)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.291 BETA (2) = -.003

X/L	.634	.742	.851	.986
PHI				
135.000		-.0480	-.0445	.5223
150.000		-.0763	.2421	.4357
165.000		-.1092	.2205	.2477
195.000			.1395	.1549
210.000			.1655	.2344
225.000			.0542	.3982
240.000			.0745	.3060
270.000	-.0551	-.0759	-.0728	.4050
300.000			-.0651	.0605
330.000			-.0371	.0274

ALPHA (2) = -.318 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			-.0009	.0447
30.000		-.2076	-.0570	.0383
60.000		-.1481	-.1528	.0156
90.000	-.0611	-.1566	-.0856	.2881
120.000		-.1889	-.0493	.1891
135.000		-.1907	-.1127	.1998
150.000		-.2073	.0249	.1021
165.000		-.2861	-.0181	-.0335
195.000			.3335	.4557
210.000			.3545	.4019
225.000			.2707	.4474
240.000			.2448	.4153
270.000	.0003	-.0053	-.0365	.2408
300.000			.0255	.0602
330.000			-.0180	.0121

ALPHA (3) = 3.861 BETA (1) = -.006

X/L	.634	.742	.851	.986
PHI				
.000			.0215	.1637
30.000		-.1508	-.0182	.1355
60.000		-.0815	-.0310	.0605
90.000	.0062	-.0843	-.0706	.1728
120.000		-.0035	.2195	.4179
135.000		-.0030	.1196	.5370
150.000		-.0193	.3136	.4650
165.000		-.0788	.2847	.2721
195.000			.2203	.2031
210.000			.2533	.2922
225.000			.1965	.4237
240.000			.1859	.3464
270.000	-.0159	-.1007	-.1207	.1521
300.000			-.0291	.0637

DATE 01 MAY 75   TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT16)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.861 BETA (1) = -.006   X/L   .634   .742   .851   .986
                                            PHI
                                            330.000   -.0175 .1350

ARC11-014IA19 OTS+STRUT SRB-HI HPS-HI EXT TANK   (REUT17)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0204	-.2517
30.000		-.1044	.0048	-.2663
60.000		-.0726	.0026	-.1834
90.000	-.0387	-.0204	.0230	.1970
120.000		.0125	-.0156	.0233
135.000		.0208	-.0304	.2789
150.000		.0245	.1014	.1304
165.000		-.0020	.0641	-.0992
195.000			.0162	-.1473
210.000			.0866	-.0087
225.000			-.0085	.2774
240.000			-.0459	.0038
270.000	-.0506	-.0237	.0133	.1815
300.000			.0113	-.1707
330.000			.0030	-.2858

ALPHA (2) = -.426 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			-.0014	-.2604
30.000		-.0918	-.0040	-.2726
60.000		-.0446	.0134	-.1921
90.000	.0189	.0268	-.0172	.1157
120.000		.1045	.1262	.1624
135.000		.1146	.0952	.3046
150.000		.1421	.2801	.3743
165.000		.0963	.2336	.1117
195.000			-.0621	-.2353
210.000			-.0518	-.1011
225.000			-.0860	.1496
240.000			-.1219	-.0476
270.000	-.1123	-.1081	-.0343	.1628
300.000			-.0331	-.1912
330.000			-.0210	-.2883

ALPHA (2) = -.447 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0269	-.2471
30.000		-.1274	.0075	-.2534
60.000		-.0928	.0036	-.1926
90.000	-.0550	-.0362	.0002	.2151
120.000		.0170	.0310	.0923

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI EXT TANK   (REUT17)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.447 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
135.000		.0283	-.0049	.3845
150.000		.0291	.1365	.1507
165.000		.0089	.0954	-.0885
195.000			.0485	-.1313
210.000			.1189	.0263
225.000			.0214	.3548
240.000			-.0087	.0674
270.000	-.0570	-.0378	-.0041	.2120
300.000			.0056	-.1796
330.000			.0022	-.2702

ALPHA (2) = -.435 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			.0152	-.2402
30.000		-.1393	.0002	-.2448
60.000		-.1316	-.0261	-.1719
90.000	-.1084	-.1120	-.0229	.2171
120.000		-.0938	-.0756	-.0572
135.000		-.1147	-.0833	.1144
150.000		-.1508	-.0259	-.0177
165.000		-.2154	-.0549	-.2065
195.000			.2063	.1464
210.000			.2648	.1354
225.000			.1299	.3904
240.000			.0981	.1137
270.000	.0148	.0404	.0016	.1441
300.000			.0321	-.1629
330.000			.0093	-.2654

ALPHA (3) = 3.930 BETA (1) = .000

X/L	.634	.742	.851	.986
PHI				
.000			-.0101	-.2574
30.000		-.1553	-.0309	-.2748
60.000		-.1232	-.0428	-.1950
90.000	-.0560	-.0771	-.1193	.1097
120.000		.0264	.0478	.1190
135.000		.0430	.0085	.4495
150.000		.0468	.1540	.1690
165.000		.0290	.1153	-.0724
195.000			.0707	-.1341
210.000			.1431	.0172
225.000			.0561	.3817
240.000			.0180	.0601
270.000	-.0592	-.0895	-.1112	.0735
300.000			-.0287	-.2035

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI EXT TANK   (REUT17)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.930 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                           PHI
                                           330.000   -.0225 -.2937

ARC11-014IA19 OTS+STRUT SRB-HI   MPS-HI   EXT TANK   (REUT18)   (22 OCT 74)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT	ELV-IB = 8.000	ELV-CB = 4.000
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT	RUDDER = .000	MACH = 1.100
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT	GIMBAL = 1.000	
SCALE = .0200			

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.098 BETA (1) =   .000

X/L PHI	.634	.742	.851	.986
.000			.2276	.0047
30.000		.0429	.2182	.0143
60.000		.0657	.2186	.1199
90.000	-.0933	.0728	.2110	.4060
120.000		.1047	.1811	.1189
135.000		.1146	.1838	.3235
150.000		.1006	.2507	.2831
165.000		.0638	.2160	.0591
195.000			.1778	.0349
210.000			.2192	.1372
225.000			.1780	.3181
240.000			.1531	.0918
270.000	-.0883	.0600	.2009	.3754
300.000			.2199	.1687
330.000			.2167	.0198

ALPHA (2) = -.396 BETA (1) = -4.003

X/L PHI	.634	.742	.851	.986
.000			.2032	.0194
30.000		.0332	.2060	-.0172
60.000		.1023	.2257	.0188
90.000	.1065	.1913	.2232	.2901
120.000		.2564	.3367	.3656
135.000		.2681	.3306	.6329
150.000		.2917	.4578	.5275
165.000		.2444	.4214	.3184
195.000			.0412	-.0713
210.000			.0653	.0324
225.000			.0616	.2478
240.000			.0579	.0356
270.000	-.0783	.0226	.1511	.2454
300.000			.1665	.1425
330.000			.1910	.0146

ALPHA (2) = -.438 BETA (2) =   .009

X/L PHI	.634	.742	.851	.986
.000			.2110	.0166
30.000		-.0433	.2012	.0093
60.000		.0052	.2025	.0489
90.000	-.0149	.1011	.2361	.2763
120.000		.1485	.2221	.2145

ARC11-014IA19 OTS+STRUT SRB-HI　MPS-HI　EXT TANK　　　　　　(REUT18)

SECTION (1)EXTERNAL TANK　　　　　　　DEPENDENT VARIABLE CP

ALPHA (2) = -.438　BETA (2) =　.009

X/L	.634	.742	.851	.986
PHI				
135.000		.1550	.2278	.3985
150.000		.1447	.2972	.3221
165.000		.1111	.2608	.0964
195.000			.2293	.0718
210.000			.2679	.1800
225.000			.2230	.4013
240.000			.2033	.1640
270.000	-.0043	.0914	.2294	.2791
300.000			.2125	.1083
330.000			.2038	.0163

ALPHA (2) = -.573　BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			.1961	.0203
30.000		.0279	.1844	.0093
60.000		.0256	.1470	.1013
90.000	-.0797	.0030	.1123	.2609
120.000		-.0126	.0064	.0179
135.000		-.0509	-.0148	.2128
150.000		-.0991	-.0282	.0286
165.000		-.1093	-.0426	-.0905
195.000			.3837	.3109
210.000			.4230	.3164
225.000			.3186	.5071
240.000			.2942	.2915
270.000	.1099	.1834	.2162	.2791
300.000			.2261	.0505
330.000			.2030	-.0148

ALPHA (3) = 3.915　BETA (1) =　.000

X/L	.634	.742	.851	.986
PHI				
.000			.1770	.0134
30.000		-.0376	.1684	-.0176
60.000		.0243	.1637	-.0025
90.000	.0819	.1151	.1409	.2678
120.000		.1862	.2817	.2957
135.000		.1991	.2789	.4515
150.000		.1984	.3440	.3371
165.000		.1772	.3073	.1158
195.000			.2753	.1116
210.000			.3155	.1945
225.000			.2733	.3614
240.000			.2549	.2185
270.000	.0854	.1096	.1442	.2524
300.000			.1659	.0270

ARC11-014IA19 OTS+STRUT SRB-HI   MPS-HI   EXT TANK   (REUT18)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.915 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   .1671 -.0128
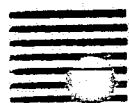
ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI EXT TANK   (REUT19)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.185 BETA (1) = -.009

X/L	.634	.742	.851	.986
PHI				
.000			.0132	.0699
30.000		-.1917	-.0277	.0611
60.000		-.1187	-.0390	.0369
90.000	-.0594	-.0948	.0302	.2712
120.000		-.0665	.0342	.2716
135.000		-.0670	-.0189	.4200
150.000		-.0605	.1896	.3607
165.000		-.1954	.1679	.1589
195.000			.0822	.0473
210.000			.1295	.1411
225.000			-.0513	.3496
240.000			-.0310	.2090
270.000	-.0698	-.0953	.0097	.2615
300.000			-.0412	.0635
330.000			-.0318	.0675

ALPHA (2) = -.459 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.1733	.0971
30.000		-.0970	.1988	.0715
60.000		-.0257	.2017	.1000
90.000	.0343	.0044	.0967	.3352
120.000		.0891	.3340	.4847
135.000		.0938	.3167	.6313
150.000		.0961	.4326	.5859
165.000		.0136	.4098	.4006
195.000			-.0125	-.0840
210.000			.0073	-.0042
225.000			-.0769	.2749
240.000			-.1214	.1732
270.000	-.1285	-.2118	-.0080	.3825
300.000			.0691	.0800
330.000			.1578	.0919

ALPHA (2) = -.438 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			.1636	.0852
30.000		-.1842	.1655	.0861
60.000		-.1195	.0902	.0911
90.000	-.0545	-.1046	.0480	.4179
120.000		-.0683	.1625	.3312

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI EXT TANK   (REUT19)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.438 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
135.000		-.0534	.1252	.5022
150.000		-.0491	.2620	.3938
165.900		-.1799	.2349	.1973
195.000			.1570	.1076
210.000			.1947	.2144
225.000			.1080	.4197
240.000			.1038	.2734
270.000	-.0647	-.1030	.0166	.4535
300.000			.0830	.1129
330.000			.1435	.0886

ALPHA (2) = -.549 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			.1704	.1038
30.000		-.2604	.1471	.0878
60.000		-.2113	.0607	.0641
90.000	-.1082	-.2386	-.0185	.3480
120.000		-.2159	-.1139	.1625
135.000		-.1483	-.1409	.1893
150.000		-.1422	-.0336	.0433
165.000		-.1627	-.0702	-.0823
195.000			.3529	.3863
210.000			.3821	.3628
225.000			.3053	.4996
240.000			.2837	.3959
270.000	.0312	.0132	.1094	.3344
300.000			.2113	.1213
330.000			.1951	.0757

ALPHA (3) = 3.516 BETA (1) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			.2459	.0972
30.000		-.1806	.2243	.0675
60.000		-.1094	.2005	.1027
90.000	-.0345	-.1141	.0691	.3350
120.000		-.0364	.2709	.3619
135.000		-.0175	.2714	.4786
150.000		-.0589	.3380	.4272
165.000		-.1608	.3038	.2252
195.000			.2353	.1395
210.000			.2717	.2377
225.000			.2323	.4067
240.000			.2174	.2839
270.000	-.0620	-.1210	.0556	.3476
300.000			.1988	.1150

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI EXT TANK   (REUT19)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.516 BETA (1) =   .012   X/L   .634   .742   .851   .986
                                           PHI
                                           330.000   .2217   .0691

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI EXT TANK   (REUT20)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			-.0052	.0064
30.000		-.1452	-.0490	.0064
60.000		-.0781	-.0753	.0449
90.000	-.0275	-.0603	-.0204	.4653
120.000		-.0908	-.0142	.3222
135.000		-.0812	-.1999	.4816
150.000		-.1205	.1779	.3917
165.000		-.1268	.1561	.2055
195.000			.0825	.0937
210.000			.1087	.1759
225.000			-.0548	.3522
240.000			-.0188	.2539
270.000	-.0779	-.0719	-.0528	.4883
300.000			-.0667	.0465
330.000			-.0493	-.0034

ALPHA (2) = -.489 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			-.0025	.0395
30.000		-.0659	-.0224	.0229
60.000		.0049	.0286	.0775
90.000	.0130	.0054	.0132	.3127
120.000		.1264	.2874	.5325
135.000		.1327	.2355	.5755
150.000		.1335	.3837	.6459
165.000		.1281	.3786	.4961
195.000			-.0087	-.0553
210.000			-.0010	.0132
225.000			-.0868	.2726
240.000			-.0939	.2145
270.000	-.0903	-.1532	-.1007	.3443
300.000			-.1371	.0372
330.000			-.0531	.0430

ALPHA (2) = -.432 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0053	.0276
30.000		-.1398	-.0373	.0483
60.000		-.0760	-.0600	.0740
90.000	-.0172	-.0581	-.0218	.3965
120.000		-.0141	.0824	.4059

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI EXT TANK   (REUT20)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.432 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
135.000		-.0410	-.1552	.5617
150.000		-.0712	.2384	.4480
165.000		-.0987	.2197	.2535
195.000			.1435	.1551
210.000			.1696	.2388
225.000			.0573	.3976
240.000			.0780	.3090
270.000	-.0478	-.0693	-.0680	.4114
300.000			-.0590	.0732
330.000			-.0319	.0370

ALPHA (2) = -.486 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			-.0018	.0437
30.000		-.2069	-.0613	.0482
60.000		-.1476	-.1529	.0286
90.000	-.0602	-.1569	-.0819	.2692
120.000		-.1874	-.0555	.2210
135.000		-.1891	-.1557	.2353
150.000		-.2062	.0269	.1037
165.000		-.2866	-.0152	-.0233
195.000			.3324	.4515
210.000			.3504	.3985
225.000			.2682	.4438
240.000			.2433	.4125
270.000	-.0008	-.0042	-.0358	.2465
300.000			.0233	.0630
330.000			-.0196	.0117

ALPHA (3) = 3.657 BETA (1) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0179	.1565
30.000		-.1490	-.0244	.1346
60.000		-.0818	-.0343	.0745
90.000	.0076	-.0807	-.0616	.1851
120.000		-.0015	.1972	.4297
135.000		.0010	.0282	.5534
150.000		-.0264	.3083	.4786
165.000		-.0749	.2849	.2828
195.000			.2214	.2138
210.000			.2495	.2938
225.000			.1883	.4238
240.000			.1788	.3480
270.000	-.0151	-.0987	-.1139	.1616
300.000			-.0338	.0621

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI EXT TANK   (REUT20)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.657 BETA (1) =   .009   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   -.0186   .1311

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT21)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.200 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                              PHI
                                               .000   -.0002   .0104
                                             30.000   -.1419 -.0452   .0093
                                             60.000   -.0739 -.0737   .0446
                                             90.000   -.0231 -.0562 -.0168   .4786
                                            120.000   -.0476 -.0103   .3246
                                            135.000   -.0787 -.2008   .4839
                                            150.000   -.1158   .1824   .3917
                                            165.000   -.1237   .1582   .2064
                                            195.000   .0836   .0968
                                            210.000   .1080   .1838
                                            225.000   -.0512   .3550
                                            240.000   -.0124   .2576
                                            270.000   -.0757 -.0708 -.0505   .4941
                                            300.000   -.0655   .0482
                                            330.000   -.0457   .0014

ALPHA (2) = -.180 BETA (1) = -4.000   X/L   .634   .742   .851   .986
                                              PHI
                                               .000   -.0015   .0406
                                             30.000   -.0663 -.0220   .0224
                                             60.000   .0045   .0289   .0733
                                             90.000   .0117   .0035   .0129   .3119
                                            120.000   .1267   .2901   .5378
                                            135.000   .1340   .2392   .5770
                                            150.000   .1353   .3913   .6500
                                            165.000   .1295   .3819   .4960
                                            195.000   -.0111   -.0648
                                            210.000   -.0103   .0087
                                            225.000   -.0939   .2780
                                            240.000   -.0922   .2181
                                            270.000   -.0895 -.1520 -.1011   .3469
                                            300.000   -.1369   .0359
                                            330.000   -.0522   .0460

ALPHA (2) = -.291 BETA (2) =   .012   X/L   .634   .742   .851   .986
                                              PHI
                                               .000   .0056   .0304
                                             30.000   -.1437 -.0351   .0503
                                             60.000   -.0777 -.0573   .0666
                                             90.000   -.0191 -.0629 -.0276   .3682
                                            120.000   -.0159   .0806   .4013

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT21)

SECTION (1) EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.291 BETA (2) =   .012

X/L PHI	.634	.742	.851	.986
135.000		-.0446	-.1562	.5534
150.000		-.0694	.2374	.4402
165.000		-.1047	.2181	.2498
195.000			.1441	.1581
210.000			.1727	.2420
225.000			.0594	.4019
240.000			.0796	.3087
270.000	-.0478	-.0728	-.0736	.3988
300.000			-.0579	.0680
330.000			-.0321	.0369

ALPHA (2) = -.306 BETA (3) = 4.028

X/L PHI	.634	.742	.851	.986
.000			-.0011	.0441
30.000		-.2072	-.0579	.0493
60.000		-.1485	-.1511	.0266
90.000	-.0599	-.1580	-.0843	.2660
120.000		-.1880	-.0542	.2249
135.000		-.1903	-.1612	.2404
150.000		-.2046	.0261	.1152
165.000		-.2831	-.0163	-.0408
195.000			.3369	.4568
210.000			.3548	.4041
225.000			.2751	.4460
240.000			.2455	.4179
270.000	.0031	-.0032	-.0393	.2402
300.000			.0257	.0600
330.000			-.0179	.0107

ALPHA (3) = 3.969 BETA (1) =   .006

X/L PHI	.634	.742	.851	.986
.000			.0215	.1574
30.000		-.1512	-.0218	.1385
60.000		-.0811	-.0330	.0724
90.000	.0070	-.0815	-.0700	.1705
120.000		-.0034	.1950	.4211
135.000		-.0022	.0465	.5464
150.000		-.0194	.3052	.4656
165.000		-.0748	.2789	.2762
195.000			.2213	.2105
210.000			.2539	.2924
225.000			.1974	.4218
240.000			.1954	.3448
270.000	-.0117	-.1023	-.1210	.1460
300.000			-.0324	.0496

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT21)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.969 BETA (1) =   .006   X/L   .634   .742   .851   .986
                                                PHI
                                                330.000   -.0176   .1340

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT22)   (22 OCT 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT	
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT	
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT	
SCALE = .0200		

ELV-IB =	8.000	ELV-CB =	.000
RUDDER =	.000	MACH =	1.400
GIMBAL =	1.000		

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) = .006

X/L	.634	.742	.851	.986
PHI				
.000			-.0052	.0073
30.000		-.1442	-.0504	.0085
60.000		-.0769	-.0782	.0429
90.000	-.0264	-.0580	-.0181	.4734
120.000		-.0509	-.0144	.3270
135.000		-.0830	-.2025	.4856
150.000		-.1202	.1833	.3993
165.000		-.1279	.1630	.2113
195.000			.0828	.0957
210.000			.1095	.1810
225.000			-.0546	.3519
240.000			-.0139	.2558
270.000	-.0779	-.0709	-.0491	.4885
300.000			-.0678	.0467
330.000			-.0481	-.0014

ALPHA (2) = -.348 BETA (1) = -3.997

X/L	.634	.742	.851	.986
PHI				
.000			-.0021	.0400
30.000		-.0658	-.0223	.0249
60.000		.0053	.0296	.0772
90.000	.0093	.0061	.0161	.3178
120.000		.1274	.2884	.5362
135.000		.1325	.2378	.5757
150.000		.1338	.3902	.6493
165.000		.1275	.3790	.4982
195.000			-.0118	-.0585
210.000			-.0029	.0115
225.000			-.0934	.2770
240.000			-.0937	.2204
270.000	-.0910	-.1539	-.1009	.3498
300.000			-.1414	.0379
330.000			-.0529	.0442

ALPHA (2) = -.366 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.0053	.0280
30.000		-.1424	-.0360	.0492
60.000		-.0760	-.0602	.0706
90.000	-.0183	-.0601	-.0236	.3883
120.000		-.0135	.0884	.4053

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT22)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.366 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
135.000		-.0447	-.1488	.5567
150.000		-.0733	.2394	.4463
165.000		-.1045	.2203	.2530
195.000			.1434	.1618
210.000			.1717	.2394
225.000			.0604	.4019
240.000			.0783	.3107
270.000	-.0487	-.0695	-.0659	.4085
300.000			-.0595	.0710
330.000			-.0316	.0353

ALPHA (2) = -.522 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			-.0016	.0408
30.000		-.2094	-.0592	.0488
60.000		-.1500	-.1521	.0273
90.000	-.0612	-.1581	-.0799	.2677
120.000		-.1889	-.0525	.2202
135.000		-.1906	-.1665	.2365
150.000		-.2091	.0270	.1133
165.000		-.2931	-.0167	-.0330
195.000			.3309	.4514
210.000			.3529	.4014
225.000			.2705	.4455
240.000			.2403	.4131
270.000	.0000	-.0056	-.0350	.2472
300.000			.0229	.0648
330.000			-.0212	.0127

ALPHA (3) = 3.942 BETA (1) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			.0203	.1610
30.000		-.1507	-.0212	.1409
60.000		-.0804	-.0329	.0756
90.000	.0074	-.0822	-.0698	.1740
120.000		-.0033	.1998	.4267
135.000		-.0015	.0436	.5490
150.000		-.0257	.3077	.4726
165.000		-.0735	.2822	.2779
195.000			.2231	.2057
210.000			.2521	.2942
225.000			.1985	.4238
240.000			.1821	.3464
270.000	-.0138	-.0998	-.1205	.1532
300.000			-.0302	.0611

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT22)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.942 BETA (1) =   .012   X/L   .634   .742   .851   .986
                                              PHI
                                              330.000   -.0175   .1352
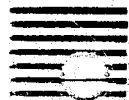
ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT23)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT	ELV-IB = .000	ELV-OB = .000
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT	RUDDER = .000	MACH = .900
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT	GIMBAL = 1.000	
SCALE = .0200			

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.047 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.0127	-.2593
30.000		-.1054	-.0050	-.2724
60.000		-.0726	-.0078	-.1862
90.000	-.0405	-.0236	.0153	.1985
120.000		.0073	-.0263	.0274
135.000		.0186	-.0417	.2755
150.000		.0148	.0882	.1301
165.000		-.0102	.0502	-.0977
195.000			.0091	-.1624
210.000			.0810	-.0192
225.000			-.0185	.2574
240.000			-.0161	-.0208
270.000	-.0410	-.0282	.0070	.1681
300.000			.0016	-.1757
330.000			-.0068	-.2921

ALPHA (2) = -.276 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.0020	-.2542
30.000		-.0789	.0006	-.2643
60.000		-.0304	.0182	-.1828
90.000	.0259	.0396	-.0136	.1153
120.000		.1153	.1300	.1732
135.000		.1264	.1007	.5160
150.000		.1548	.2863	.3880
165.000		.1097	.2402	.1281
195.000			-.0515	-.2399
210.000			-.0517	-.1050
225.000			-.0778	.1456
240.000			-.0772	-.0500
270.000	-.1085	-.0976	-.0276	.1306
300.000			-.0250	-.1816
330.000			-.0143	-.2788

ALPHA (2) = -.237 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0441	-.2253
30.000		-.1166	.0260	-.2312
60.000		-.0845	.0226	-.1764
90.000	-.0521	-.0226	.0154	.2070
120.000		.0291	.0506	.1031

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT25)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.237 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
135.000		.0393	.0133	.3946
150.000		.0410	.1541	.1594
165.000		.0162	.1207	-.0734
195.000			.0584	-.1012
210.000			.1287	.0437
225.000			.0358	.3775
240.000			.0359	.0861
270.000	-.0517	-.0256	.0070	.2259
300.000			.0195	-.1598
330.000			.0170	-.2486

ALPHA (2) = -.195 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			.0197	-.2304
30.000		-.1395	.0027	-.2365
60.000		-.1284	-.0186	-.1657
90.000	-.1041	-.1059	-.0141	.2000
120.000		-.0903	-.0705	-.0590
135.000		-.1136	-.0793	.1134
150.000		-.1521	-.0278	-.0189
165.000		-.2184	-.0558	-.1955
195.000			.2127	.1500
210.000			.2718	.1390
225.000			.1359	.3921
240.000			.1365	.1124
270.000	.0151	.0440	.0049	.1314
300.000			.0407	-.1600
330.000			.0141	-.2580

ALPHA (3) = 3.855 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.0142	-.2340
30.000		-.1487	-.0037	-.2521
60.000		-.1168	-.0161	-.1845
90.000	-.0541	-.0590	-.0871	.1029
120.000		.0402	.0710	.1294
135.000		.0551	.0284	.4589
150.000		.0608	.1723	.1681
165.000		.0394	.1336	-.0606
195.000			.0890	-.1065
210.000			.1588	.0453
225.000			.0689	.4010
240.000			.0709	.0809
270.000	-.0554	-.0726	-.0920	.1001
300.000			-.0118	-.1785

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT23)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.855 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                               PHI
                                               330.000   -.0035 -.2682

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT24)   (22 OCT 74)

REFERENCE DATA	PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-CB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.2244	.0021
30.000		.0370	.2160	.0347
60.000		.0628	.2155	.1448
90.000	-.0847	.0740	.2117	.3984
120.000		.1009	.1761	.1141
135.000		.1161	.1785	.3414
150.000		.1052	.2509	.2746
165.000		.0655	.2177	.0513
195.000			.1793	.0263
210.000			.2212	.1360
225.000			.1795	.3165
240.000			.1502	.0887
270.000	-.0751	.0646	.2006	.3697
300.000			.2177	.1636
330.000			.2143	.0219

ALPHA (2) = -.279 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.1991	.0157
30.000		.0303	.2039	.0009
60.000		.0966	.2233	.0441
90.000	.1057	.1870	.2154	.2681
120.000		.2521	.3321	.3706
135.000		.2632	.3051	.6491
150.000		.2860	.4571	.5402
165.000		.2381	.4238	.3206
195.000			.0366	-.0886
210.000			.0576	.0210
225.000			.0511	.2482
240.000			.0562	.0328
270.000	-.0786	.0234	.1435	.2325
300.000			.1609	.1345
330.000			.1846	.0137

ALPHA (2) = -.246 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.2093	.0159
30.000		-.0434	.1990	.0271
60.000		.0079	.2014	.0734
90.000	-.0062	.1044	.2325	.2825
120.000		.1506	.2209	.2142
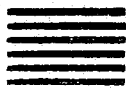
ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT24)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.246 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
135.000		.1589	.2192	.4164
150.000		.1520	.3020	.3150
165.000		.1175	.2637	.0928
195.000			.2319	.0731
210.000			.2719	.1775
225.000			.2223	.4022
240.000			.2216	.1638
270.000	.0055	.1010	.2270	.2799
300.000			.2093	.1053
330.000			.1993	.0161

ALPHA (2) = -.273 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			.1921	.0182
30.000		.0210	.1809	.0279
60.000		.0132	.1419	.1279
90.000	-.0775	-.0006	.1123	.2614
120.000		-.0113	.0032	.0194
135.000		-.0489	-.0264	.2573
150.000		-.1035	-.0322	.0254
165.000		-.1154	-.0491	-.1046
195.000			.3843	.3103
210.000			.4256	.3183
225.000			.3181	.5106
240.000			.3103	.2939
270.000	.1132	.1833	.2096	.2711
300.000			.2240	.0512
330.000			.1994	-.0128

ALPHA (3) = 3.804 BETA (1) = -.003

X/L	.634	.742	.851	.986
PHI				
.000			.1781	.0127
30.000		-.0416	.1681	.0020
60.000		.0219	.1635	.0220
90.000	.0836	.1184	.1559	.2503
120.000		.1857	.2721	.2895
135.000		.2001	.2625	.4753
150.000		.1986	.3375	.3317
165.000		.1750	.3043	.1111
195.000			.2721	.1057
210.000			.3160	.1909
225.000			.2683	.3604
240.000			.2701	.2158
270.000	.0900	.1128	.1525	.2504
300.000			.1671	.0275

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT24)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.804 BETA (1) = -.003   X/L   .634   .742   .851   .986
                                           PHI
                                           330.000   .1679 -.0081

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT25) (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT		ELV-IB = .000	ELV-OB = .000
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT		RUDDER = .000	MACH = 1.250
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT		GIMBAL = 1.000	
SCALE = .0200				

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -3.975 BETA (1) = .003

X/L	.634	.742	.851	.986
PHI				
.000			.0192	.0673
30.000		-.1949	-.0309	.0705
60.000		-.1233	-.0373	.0459
90.000	-.0805	-.0977	.0200	.2613
120.000		-.0635	-.0081	.2892
135.000		-.0655	-.1398	.4637
150.000		-.0651	.1838	.3552
165.000		-.2001	.1652	.1492
195.000			.0851	.0481
210.000			.1288	.1455
225.000			-.0518	.3557
240.000			-.0427	.2141
270.000	-.0679	-.0916	.0047	.2710
300.000			-.0399	.0529
330.000			-.0309	.0675

ALPHA (2) = -.255 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.1765	.0987
30.000		-.0976	.1970	.0890
60.000		-.0251	.2075	.1246
90.000	.0377	.0003	.1030	.3141
120.000		.0557	.3357	.4941
135.000		.0937	.2850	.6572
150.000		.0940	.4452	.5996
165.000		.0113	.4258	.4058
195.000			-.0137	-.1003
210.000			-.0172	-.0173
225.000			-.0741	.2792
240.000			-.1212	.1737
270.000	-.1350	-.2175	-.0111	.3994
300.000			.0736	.0794
330.000			.1616	.0960

ALPHA (2) = -.285 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.1595	.0882
30.000		-.1842	.1558	.1035
60.000		-.1189	.0957	.1069
90.000	-.0528	-.1096	.0410	.4185
120.000		-.0683	.1528	.3461

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT25)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.285 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
135.000		-.0494	.0832	.5207
150.000		-.0469	.2657	.3999
165.000		-.1741	.2405	.1983
195.000			.1615	.1119
210.000			.2014	.2159
225.000			.1161	.4216
240.000			.1162	.2780
270.000	-.0640	-.1058	.0095	.4517
300.000			.0713	.1128
330.000			.1385	.0923

ALPHA (2) = -.189 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			.1663	.0967
30.000		-.2627	.1526	.0959
60.000		-.2123	.0620	.0794
90.000	-.1074	-.2447	-.0360	.3540
120.000		-.2216	-.1481	.1709
135.000		-.1569	-.1915	.2195
150.000		-.1566	-.0397	.0361
165.000		-.1719	-.0808	-.1068
195.000			.3582	.3807
210.000			.3815	.3669
225.000			.3073	.5071
240.000			.3067	.4011
270.000	.0335	.0143	.0970	.3216
300.000			.2019	.1125
330.000			.1876	.0734

ALPHA (3) = 4.005 BETA (1) = .003

X/L	.634	.742	.851	.986
PHI				
.000			.2484	.1041
30.000		-.1868	.2240	.0843
60.000		-.1152	.2006	.1206
90.000	-.0322	-.1278	.0738	.3080
120.000		-.0443	.2621	.3742
135.000		-.0253	.2523	.4928
150.000		-.0619	.3343	.4156
165.000		-.1582	.2994	.2155
195.000			.2432	.1506
210.000			.2785	.2523
225.000			.2416	.4033
240.000			.2429	.2913
270.000	-.0587	-.1204	.0423	.3165
300.000			.1928	.1071

ARC11-014TA19 OTS+STRUT SRB-OFF HPS-OFF EXT TANK   (REUT25)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 4.005 BETA (1) = .003	X/L	.634	.742	.851	.986
	PHI				
	330.000			.2172	.0736

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT26)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT	ELV-IB = .000	ELV-OB = .000
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT	RUDDER = .000	MACH = 1.400
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT	GIMBAL = 1.000	
SCALE = .0200			

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -3.909 BETA (1) = .009

X/L	.634	.742	.851	.986
PHI				
.000			.0002	.0113
30.000		-.1447	-.0461	.0113
60.000		-.0747	-.0721	.0447
90.000	-.0237	-.0558	-.0190	.4819
120.000		-.0459	-.0065	.3245
135.000		-.0783	-.2006	.4916
150.000		-.1151	.1848	.3938
165.000		-.1231	.1604	.2033
195.000			.0840	.0959
210.000			.1110	.1815
225.000			-.0490	.3576
240.000			-.0093	.2599
270.000	-.0782	-.0713	-.0517	.4980
300.000			-.0663	.0491
330.000			-.0451	.0031

ALPHA (2) = -.243 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.0011	.0414
30.000		-.0661	-.0196	.0240
60.000		.0047	.0318	.0740
90.000	.0115	.0025	.0135	.3122
120.000		.1278	.2931	.3417
135.000		.1345	.2424	.5860
150.000		.1364	.3948	.6530
165.000		.1302	.3878	.4997
195.000			-.0104	-.0659
210.000			-.0018	.0093
225.000			-.0898	.2803
240.000			-.0925	.2218
270.000	-.0878	-.1525	-.1030	.3520
300.000			-.1375	.0378
330.000			-.0511	.0461

ALPHA (2) = -.237 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.0033	.0255
30.000		-.1458	-.0395	.0455
60.000		-.0788	-.0620	.0647
90.000	-.0203	-.0654	-.0323	.3675
120.000		-.0174	.0777	.4021

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT26)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.237 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
135.000		-.0450	-.1577	.5564
150.000		-.0717	.2349	.4391
165.000		-.1067	.2154	.2450
195.000			.1423	.1497
210.000			.1700	.2346
225.000			.0563	.4014
240.000			.0781	.3058
270.000	-.0501	-.0734	-.0760	.3976
300.000			-.0609	.0655
330.000			-.0337	.0324

ALPHA (2) = -.234 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			-.0017	.0439
30.000		-.2100	-.0583	.0497
60.000		-.1514	-.1552	.0252
90.000	-.0613	-.1609	-.0888	.2743
120.000		-.1900	-.0590	.2229
135.000		-.1864	-.1639	.2372
150.000		-.2087	.0240	.1029
165.000		-.2905	-.0203	-.0509
195.000			.3345	.4533
210.000			.3537	.4030
225.000			.2735	.4480
240.000			.2452	.4154
270.000	.0026	-.0065	-.0405	.2339
300.000			.0242	.0587
330.000			-.0216	.0120

ALPHA (3) = 4.047 BETA (1) =   .006

X/L	.634	.742	.851	.986
PHI				
.000			.0217	.1608
30.000		-.1539	-.0179	.1456
60.000		-.0840	-.0324	.0784
90.000	.0050	-.0870	-.0788	.1690
120.000		-.0050	.1926	.4217
135.000		-.0018	.0397	.5486
150.000		-.0201	.3019	.4646
165.000		-.0767	.2761	.2676
195.000			.2229	.1979
210.000			.2503	.2914
225.000			.1950	.4228
240.000			.1964	.3386
270.000	-.0148	-.1037	-.1248	.1428
300.000			-.0900	.0560

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT26)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 4.047 BETA (1) =   .006   X/L   .634   .742   .851   .986
                                              PHI
                                              330.000   -.0206   .1370

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT27)   (22 OCT 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000

LREF = 1290.3000 IN.   YMRP = .0000 IN. YT   RUDDER =   .000   MACH =   .900

BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL = 1.000

SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.125 BETA (1) = .000

X/L	.634	.742	.851	.986
PHI				
.000			.0088	-.2632
30.000		-.1140	-.0096	-.2782
60.000		-.0819	-.0098	-.1966
90.000	-.0483	-.0316	.0112	.1914
120.000		.0004	-.0296	.0034
135.000		.0111	-.0470	.2623
150.000		.0099	.0864	.1189
165.000		-.0170	.0465	-.1201
195.000			-.0040	-.1753
210.000			.0734	-.0256
225.000			-.0286	.2630
240.000			-.0278	-.0094
270.000	-.0441	-.0379	-.0014	.1738
300.000			-.0010	-.1864
330.000			-.0106	-.2971

ALPHA (2) = -.396 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.0046	-.2592
30.000		-.0885	-.0006	-.2698
60.000		-.0395	.0172	-.1968
90.000	.0174	.0316	-.0162	.1112
120.000		.1092	.1295	.1642
135.000		.1207	.0983	.5082
150.000		.1503	.2841	.3784
165.000		.1042	.2366	.1148
195.000			-.0569	-.2431
210.000			-.0551	-.1070
225.000			-.0807	.1490
240.000			-.1109	-.0477
270.000	-.1127	-.1043	-.0298	.1584
300.000			-.0258	-.1889
330.000			-.0156	-.2848

ALPHA (2) = -.408 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
.000			.0325	-.2428
30.000		-.1241	.0137	-.2506
60.000		-.0885	.0087	-.1916
90.000	-.0574	-.0340	.0016	.2008
120.000		.0264	.0367	.0935

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT27)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.408 BETA (2) = .009

X/L PHI	.634	.742	.851	.986
135.000		.0357	-.0032	.3857
150.000		.0398	.1404	.1513
165.000		.0160	..1002	-.0882
195.000			.0516	-.1341
210.000			.1278	.0244
225.000			.0337	.3634
240.000			-.0008	.0734
270.000	-.0514	-.0369	-.0040	.2176
300.000			.0137	-.1811
330.000			.0117	-.2672

ALPHA (2) = -.336 BETA (3) = 4.025

X/L PHI	.634	.742	.851	.986
.000			.0069	-.2497
30.000		-.1448	-.0094	-.2540
60.000		-.1377	-.0334	-.1781
90.000	-.1068	-.1172	-.0308	.2178
120.000		-.0961	-.0895	-.0639
135.000		-.1178	-.0958	.1091
150.000		-.1546	-.0402	-.0207
165.000		-.2224	-.0664	-.2123
195.000			.2056	.1304
210.000			.2625	.1212
225.000			.1273	.3771
240.000			.0926	.0960
270.000	.0143	.0371	-.0070	.1187
300.000			.0320	-.1832
330.000			.0045	-.2764

ALPHA (3) = 3.792 BETA (1) = -.003

X/L PHI	.634	.742	.851	.986
.000			.0221	-.2368
30.000		-.1519	.0036	-.2529
60.000		-.1200	-.0114	-.1985
90.000	-.0605	-.0631	-.0820	.0971
120.000		.0386	.0740	.1226
135.000		.0543	.0310	.4567
150.000		.0631	.1763	.1696
165.000		.0392	.1361	-.0735
195.000			.0889	-.1162
210.000			.1606	.0404
225.000			.0724	.4027
240.000			.0358	.0806
270.000	-.0589	-.0796	-.0896	.1062
300.000			-.0100	-.1839

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM.EXT TANK   (REUT27)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.792 BETA (1) = -.003   X/L   .634   .742   .851   .986
                                              PHI
                                              330.000   -.0014 -.2719

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT28)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-CB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .008

X/L	.634	.742	.851	.986
PHI				
.000			.2232	.0001
30.000		.0155	.2153	.0333
60.000		.0519	.2150	.1559
90.000	-.0792	.0673	.2020	.4170
120.000		.1085	.1741	.1066
135.000		.1191	.1739	.3289
150.000		.1084	.2485	.2714
165.000		.0701	.2153	.0511
195.000			.1720	.0273
210.000			.2191	.1322
225.000			.1728	.3125
240.000			.1478	.0861
270.000	-.0648	.0540	.1940	.3780
300.000			.2161	.1683
330.000			.2132	.0193

ALPHA (2) = -.465 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.2040	.0194
30.000		.0310	.2078	.0044
60.000		.1016	.2281	.0485
90.000	.1089	.1905	.2228	.2781
120.000		.2536	.3344	.3645
135.000		.2655	.3068	.6510
150.000		.2881	.4567	.5390
165.000		.2401	.4243	.3200
195.000			.0552	-.0809
210.000			.0602	.0285
225.000			.0589	.2481
240.000			.0539	.0297
270.000	-.0775	.0210	.1502	.2397
300.000			.1672	.1440
330.000			.1906	.0182

ALPHA (2) = -.447 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			.2127	.0189
30.000		-.0425	.2030	.0316
60.000		.0066	.2059	.0788
90.000	-.0126	.1017	.2382	.2757
120.000		.1456	.2224	.2123

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT28)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.447 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
135.000		.1536	.2207	.4122
150.000		.1456	.3013	.3168
165.000		.1117	.2661	.0900
195.000			.2300	.0709
210.000			.2686	.1815
225.000			.2236	.4060
240.000			.2032	.1662
270.000	-.0022	.0961	.2293	.2823
300.000			.2138	.1110
330.000			.2035	.0219

ALPHA (2) = -.405 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			.1947	.0212
30.000		.0241	.1848	.0319
60.000		.0157	.1458	.1351
90.000	-.0798	.0003	.1112	.2678
120.000		-.0131	.0068	.0141
135.000		-.0491	-.0283	.2510
150.000		-.1018	-.0333	.0270
165.000		-.1110	-.0555	-.1000
195.000			.3862	.3091
210.000			.4249	.3170
225.000			.3191	.5112
240.000			.2954	.2974
270.000	.1111	.1850	.2146	.2805
300.000			.2264	.0540
330.000			.2025	-.0113

ALPHA (3) = 3.819 BETA (1) = .009

X/L	.654	.742	.851	.986
PHI				
.000			.1797	.0153
30.000		-.0381	.1715	.0042
60.000		.0244	.1678	.0262
90.000	.0786	.1138	.1562	.2610
120.000		.1818	.2761	.2975
135.000		.1963	.2680	.4736
150.000		.1938	.3416	.3362
165.000		.1723	.3080	.1151
195.000			.2743	.1056
210.000			.3163	.1971
225.000			.2737	.3646
240.000			.2531	.2216
270.000	.0854	.1127	.1516	.2583
300.000			.1704	.0316

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT28)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.819 BETA (1) =   .009   X/L   .634   .742   .851   .986
                                            PHI
                                            330.000   .1713 -.0061

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK　　　　　　　(REUT29)　(22 OCT 74)

REFERENCE DATA　　　　　　　　　　　　　　　　　　　　　　　　　　　　　PARAMETRIC DATA

SREF	=	2690.0000 SQ.FT.	XMRP	=	976.0000 IN. XT
LREF	=	1290.3000 IN.	YMRP	=	.0000 IN. YT
BREF	=	1290.3000 IN.	ZMRP	=	400.0000 IN. ZT
SCALE	=	.0200			

ELV-IB	=	.000	ELV-OB	=	.000
RUDDER	=	.000	MACH	=	1.250
GIMBAL	=	1.000			

SECTION (1)EXTERNAL TANK　　　　　　　　DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) = .006

X/L	.634	.742	.851	.986
PHI				
.000			.0211	.0730
30.000		-.1888	-.0311	.0769
60.000		-.1198	-.0396	.0506
90.000	-.0598	-.0963	.0208	.2564
120.000		-.0648	-.0024	.2857
135.000		-.0678	-.1298	.4653
150.000		-.0604	.1858	.3597
165.000		-.1995	.1705	.1539
195.000			.0874	.0500
210.000			.1306	.1483
225.000			-.0515	.3586
240.000			-.0284	.2162
270.000	-.0660	-.0914	.0065	.2756
300.000			-.0407	.0613
330.000			-.0274	.0743

ALPHA (2) = -.375 BETA (1) = -3.997

X/L	.634	.742	.851	.986
PHI				
.000			.1762	.1046
30.000		-.0929	.2067	.0944
60.000		-.0229	.2073	.1308
90.000	.0403	.0028	.1076	.3275
120.000		.0860	.3323	.4955
135.000		.0956	.2768	.6545
150.000		.0983	.4431	.6032
165.000		.0167	.4246	.4106
195.000			-.0116	-.0900
210.000			.0023	-.0052
225.000			-.0763	.2810
240.000			-.1242	.1767
270.000	-.1306	-.2157	-.0133	.3987
300.000			.0704	.0859
330.000			.1506	.1025

ALPHA (2) = -.408 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.1545	.0874
30.000		-.1820	.1338	.1019
60.000		-.1192	.0829	.1071
90.000	-.0533	-.1094	.0350	.4133
120.000		-.0721	.1502	.3485

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT29)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.408 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
135.000		-.0587	.0635	.5252
150.000		-.0477	.2647	.4047
165.000		-.1805	.2429	.2033
195.000			.1583	.1092
210.000			.1956	.2137
225.000			.1097	.4195
240.000			.1018	.2759
270.000	-.0633	-.1084	.0066	.4560
300.000			.0629	.1119
330.000			.1132	.0930

ALPHA (2) = -.381 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			.1689	.1040
30.000		-.2565	.1478	.1027
60.000		-.2090	.0617	.0800
90.000	-.1073	-.2401	-.0127	.3517
120.000		-.2220	-.1370	.1735
135.000		-.1546	-.1837	.2255
150.000		-.1522	-.0310	.0495
165.000		-.1663	-.0708	-.0919
195.000			.3619	.3863
210.000			.3871	.3675
225.000			.3013	.5034
240.000			.2772	.3997
270.000	.0302	.0200	.0873	.3325
300.000			.2049	.1224
330.000			.1944	.0790

ALPHA (3) = 3.843 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.2549	.1058
30.000		-.1813	.2305	.0855
60.000		-.1117	.2065	.1245
90.000	-.0315	-.1207	.0817	.3133
120.000		-.0391	.2694	.3777
135.000		-.0214	.2645	.4991
150.000		-.0601	.3412	.4238
165.000		-.1536	.3083	.2210
195.000			.2516	.1550
210.000			.2834	.2547
225.000			.2493	.4085
240.000			.2389	.2920
270.000	-.0577	-.1220	.0536	.3418
300.000			.2064	.1144

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT29)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.843 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                               PHI
                                            330.000   .2277   .0795

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.224 BETA (1) =   .006   X/L   .634   .742   .851   .986
                                                 PHI
                                                   .000   -.0053   .0069
                                                 30.000   -.1446   -.0497   .0075
                                                 60.000   -.0769   -.0775   .0429
                                                 90.000   -.0267   -.0589   -.0198   .4792
                                                120.000   -.0517   -.0136   .3263
                                                135.000   -.0829   -.2066   ·.4883
                                                150.000   -.1195   .1822   .4023
                                                165.000   -.1270   .1581   .2072
                                                195.000   .0845   .0889
                                                210.000   .1077   .1793
                                                225.000   -.0540   .3538
                                                240.000   -.0128   .2572
                                                270.000   -.0796   -.0735   -.0510   .4964
                                                300.000   -.0689   .0462
                                                330.000   -.0489   -.0014

ALPHA (2) = -.444 BETA (1) = -3.997   X/L   .634   .742   .851   .986
                                                 PHI
                                                   .000   -.0029   .0399
                                                 30.000   -.0663   -.0224   .0234
                                                 60.000   .0042   .0297   .0767
                                                 90.000   .0092   .0042   .0173   .3191
                                                120.000   .1257   .2904   .5378
                                                135.000   .1321   .2407   .5776
                                                150.000   .1316   .3890   .6539
                                                165.000   .1295   .3829   .5013
                                                195.000   -.0130   -.0644
                                                210.000   -.0042   .0077
                                                225.000   -.0963   .2758
                                                240.000   -.0946   .2172
                                                270.000   -.0908   -.1550   -.1020   .3511
                                                300.000   -.1389   .0376
                                                330.000   -.0519   .0452

ALPHA (2) = -.405 BETA (2) =   .016   X/L   .634   .742   .851   .986
                                                 PHI
                                                   .000   .0036   .0254
                                                 30.000   -.1440   -.0382   .0482
                                                 60.000   -.0778   -.0623   .0681
                                                 90.000   -.0195   -.0605   -.0275   .3901
                                                120.000   -.0153   .0850   .4046

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT30)

SECTION (1)EXTERNAL TANK   DEFENDENT VARIABLE CF

ALPHA (2) = -.405 BETA (2) =   .016

X/L	.634	.742	.851	.986
PHI				
135.000		-.0449	-.1519	.5600
150.000		-.0715	.2369	.4491
165.000		-.1062	.2217	.2536
195.000			.1418	.1538
210.000			.1659	.2352
225.000			.0550	.4005
240.000			.0768	.3057
270.000	-.0512	-.0728	-.0730	.4134
300.000			-.0607	.0697
330.000			-.0339	.0353

ALPHA (2) = -.360 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			.0016	.0467
30.000		-.2070	-.0551	.0490
60.000		-.1476	-.1506	.0287
90.000	-.0598	-.1562	-.0799	.2757
120.000		-.1847	-.0512	.2237
135.000		-.1865	-.1609	.2377
150.000		-.2051	.0294	.1089
165.000		-.2898	-.0134	-.0316
195.000			.3372	.4577
210.000			.3563	.4081
225.000			.2739	.4905
240.000			.2485	.4212
270.000	.0010	-.0033	-.0330	.2511
300.000			.0283	.0667
330.000			-.0167	.0123

ALPHA (3) = 3.819 BETA (1) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0194	.1585
30.000		-.1520	-.0247	.1391
60.000		-.0804	-.0337	.0751
90.000	.0063	-.0835	-.0692	.1753
120.000		-.0038	.1935	.4269
135.000		-.0021	.0367	.5524
150.000		-.0220	.3085	.4745
165.000		-.0747	.2832	.2792
195.000			.2228	.2063
210.000			.2528	.2909
225.000			.1944	.4259
240.000			.1791	.3466
270.000	-.0130	-.1019	-.1187	.1558
300.000			-.0317	.0571

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT30)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.819   BETA (1) =   .009

X/L	.634	.742	.851	.986
PHI				
330.000			-.0222	.1390

TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK

(REUT31) (22 OCT 74)

REFERENCE DATA

PARAMETRIC DATA

SREF	=	2690.0000 SQ.FT.	XMRP	=	976.0000 IN. XT	
LREF	=	1290.3000 IN.	YMRP	=	.0000 IN. YT	
BREF	=	1290.3000 IN.	ZMRP	=	400.0000 IN. ZT	
SCALE	=	.0200				

ELV-IB =	.000	ELV-OB =	.000	
RUDDER =	.000	MACH =	.900	
GIMBAL =	2.000			

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

ALPHA (1) = -4.020 BETA (1) = .006

X/L	.634	.742	.851	.986
PHI				
.000			.0077	-.2741
30.000		-.1127	-.0105	-.2875
60.000		-.0799	-.0079	-.2030
90.000	-.0417	-.0314	.0085	.1977
120.000		.0037	-.0235	.0284
135.000		.0110	-.0432	.2771
150.000		.0132	.0915	.1220
165.000		-.0148	.0514	-.1011
195.000			.0050	-.1654
210.000			.0759	-.0155
225.000			-.0228	.2716
240.000			-.0232	-.0015
270.000	-.0423	-.0387	-.0055	.1899
300.000			-.0049	-.1927
330.000			-.0126	-.3076

ALPHA (2) = -.288 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.0087	-.2524
30.000		-.0811	.0034	-.2624
60.000		-.0313	.0202	-.1844
90.000	.0222	.0383	-.0157	.1107
120.000		.1149	.1332	.1711
135.000		.1286	.1029	.5136
150.000		.1556	.2858	.3866
165.000		.1085	.2397	.1254
195.000			-.0498	-.2294
210.000			-.0544	-.0989
225.000			-.0772	.1545
240.000			-.0778	-.0431
270.000	-.1061	-.1010	-.0256	.1561
300.000			-.0230	-.1803
330.000			-.0115	-.2777

ALPHA (2) = -.279 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
.000			.0417	-.2318
30.000		-.1152	.0234	-.2375
60.000		-.0848	.0185	-.1807
90.000	-.0484	-.0279	.0084	.2077
120.000		.0307	.0500	.1060

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ARC11-014:A19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT31)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.279 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
135.000		.0405	.0100	.3925
150.000		.0409	.1511	.1566
165.000		.0185	.1157	-.0728
195.000			.0566	-.1110
210.000			.1288	.0356
225.000			.0391	.3746
240.000			.0370	.0897
270.000	-.0521	-.0279	.0000	.2251
300.000			.0200	-.1639
330.000			.0171	-.2558

ALPHA (2) = -.264 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			.0089	-.2478
30.000		-.1415	-.0079	-.2518
60.000		-.1332	-.0293	-.1756
90.000	-.1063	-.1116	-.0273	.2094
120.000		-.0913	-.0787	-.0581
135.000		-.1122	-.0921	.1151
150.000		-.1511	-.0423	-.0134
165.000		-.2124	-.0678	-.2001
195.000			.2100	.1372
210.000			.2683	.1251
225.000			.1270	.3798
240.000			.1280	.1018
270.000	.0164	.0403	-.0063	.1192
300.000			.0324	-.1748
330.000			.0065	-.2739

ALPHA (3) = 3.978 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.0221	-.2360
30.000		-.1425	-.0014	-.2540
60.000		-.1107	-.0162	-.1858
90.000	-.0518	-.0591	-.0892	.1042
120.000		.0437	.0726	.1294
135.000		.0589	.0295	.4611
150.000		.0640	.1750	.1780
165.000		.0433	.1361	-.0562
195.000			.0931	-.1080
210.000			.1597	.0421
225.000			.0731	.4025
240.000			.0722	.0844
270.000	-.0534	-.0761	-.0927	.1032
300.000			-.0101	-.1739

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT31)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP.

ALPHA (3) = 3.978 · BETA (1) =   .000   X/L   .634   .742   .851   .986
                                            PHI
                                            330.000   -.0018 -.2686

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT32)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.2193	-.0004
30.000		.0291	.2095	.0325
60.000		.0522	.2075	.1492
90.000	-.0966	.0676	.2004	.3985
120.000		.0727	.1612	.1130
135.000		.0753	.1646	.3317
150.000		.0718	.2374	.2754
165.000		.0259	.2068	.0549
195.000			.1655	.0156
210.000			.2043	.1258
225.000			.1661	.3167
240.000			.1652	.0804
270.000	-.0745	.0684	.1965	.3199
300.000			.2094	.1470
330.000			.2076	.0183

ALPHA (2) = -.255 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.2094	.0244
30.000		-.0154	.2105	.0210
60.000		.0639	.2303	.0640
90.000	.0860	.1697	.2492	.2695
120.000		.2294	.3166	.3511
135.000		.2403	.2916	.6292
150.000		.2580	.4394	.5429
165.000		.2002	.4084	.3307
195.000			.0143	-.1124
210.000			.0149	-.0058
225.000			.0395	.2348
240.000			.0415	.0290
270.000	-.1276	.0253	.1425	.1804
300.000			.1636	.1175
330.000			.1937	.0287

ALPHA (2) = -.213 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.1975	.0267
30.000		-.0207	.1881	.0397
60.000		.0102	.1928	.0512
90.000	-.0615	.0595	.2171	.2458
120.000		.0918	.2116	.2452
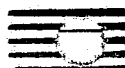
ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT32)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) =. -.213 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
135.000		.0852	.2065	.4348
150.000		.0766	.2912	.3241
165.000		.0366	.2552	.0995
195.000			.2109	.0723
210.000			.2481	.1839
225.000			.2059	.4192
240.000			.2068	.1956
270.000	-.0541	.0622	.2023	.2500
300.000			.1889	.0709
330.000			.1883	.0296

ALPHA (2) = -.219 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			.1988	.0321
30.000		.0692	.1813	.0469
60.000		.0610	.1387	.1203
90.000	-.1190	-.0048	.1031	.2221
120.000		-.0250	-.0134	.0114
135.000		-.0676	-.0643	.2408
150.000		-.1147	-.0783	-.0005
165.000		-.1327	-.0775	-.1148
195.000			.3732	.3130
210.000			.4102	.3195
225.000			.3111	.4961
240.000			.3116	.2827
270.000	.0935	.1650	.2356	.2768
300.000			.2305	.0704
330.000			.2048	.0075

ALPHA (3) = 3.981 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.1833	.0355
30.000		.0028	.1746	.0254
60.000		.0440	.1740	.0380
90.000	.0247	.0937	.1696	.2794
120.000		.1550	.2878	.3128
135.000		.1679	.2818	.4711
150.000		.1611	.3496	.3477
165.000		.1348	.3195	.1308
195.000			.2728	.1219
210.000			.3093	.2125
225.000			.2722	.3794
240.000			.2743	.2374
270.000	.0276	.0879	.1391	.2692
300.000			.1651	.0478

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT32)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.981 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                               PHI
                                               330.000   .1648   .0116

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT33)   (22 OCT 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   .000   ELV-OB =   .000
RUDDER =   .000   MACH   =   1.250
GIMBAL =   2.000

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.044 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.0077	.0717
30.000		-.1902	-.0348	.0776
60.000		-.1174	-.0396	.0452
90.000	-.0566	-.0947	.0164	.2670
120.000		-.0638	-.0057	.2951
135.000		-.0692	-.1402	.4732
150.000		-.0640	.1864	.3604
165.000		-.1969	.1695	.1569
195.000			.0866	.0494
210.000			.1303	.1497
225.000			-.0517	.3583
240.000			-.0291	.2206
270.000	-.0667	-.0891	.0007	.2784
300.000			-.0423	.0504
330.000			-.0388	.0733

ALPHA (2) = -.198 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.1704	.1035
30.000		-.0909	.2060	.0926
60.000		-.0208	.1993	.1298
90.000	.0374	.0006	.0934	.3054
120.000		.0846	.3278	.4962
135.000		.0953	.2770	.6515
150.000		.0975	.4388	.8014
165.000		.0167	.4206	.4106
195.000			-.0160	-.1004
210.000			.0006	-.0142
225.000			-.0770	.2793
240.000			-.1315	.1757
270.000	-.1324	-.2194	-.0244	.4042
300.000			.0618	.0834
330.000			.1483	.0995

ALPHA (2) = -.162 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.1496	.0873
30.000		-.1830	.1361	.1039
60.000		-.1169	.0768	.1084
90.000	-.0517	-.1102	.0241	.4092
120.000		-.0692	.1431	.3496

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT33)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.162 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
135.000		-.0549	.0660	.5293
150.000		-.0458	.2603	.4035
165.000		-.1754	.2359	.2002
195.000			.1588	.1087
210.000			.1954	.2117
225.000			.1134	.4179
240.000			.1077	.2743
270.000	-.0620	-.1067	.0020	.4475
300.000			.0628	.1095
330.000			.1166	.0926

ALPHA (2) = -.210 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			.1651	.1030
30.000		-.2602	.1477	.0999
60.000		-.2110	.0631	.0803
90.000	-.1065	-.2381	-.0399	.3638
120.000		-.2161	-.1493	.1775
135.000		-.1515	-.1950	.2277
150.000		-.1488	-.0390	.0452
165.000		-.1654	-.0760	-.0999
195.000			.3614	.3844
210.000			.3814	.3662
225.000			.3010	.5000
240.000			.2767	.4029
270.000	.0298	.0086	.0831	.3157
300.000			.2070	.1145
330.000			.1957	.0778

ALPHA (3) = 3.846 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.2523	.1071
30.000		-.1818	.2304	.0883
60.000		-.1110	.1987	.1224
90.000	-.0317	-.1275	.0786	.3058
120.000		-.0398	.2665	.3751
135.000		-.0218	.2573	.4977
150.000		-.0585	.3326	.4209
165.000		-.1495	.3004	.2188
195.000			.2435	.1528
210.000			.2809	.2538
225.000			.2453	.4036
240.000			.2410	.2914
270.000	-.0559	-.1194	.0433	.3197
300.000			.1993	.1119

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT33)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.846 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   .2252   .0775

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT34)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			-.0012	.0104
30.000			-.1431	-.0471	.0098
60.000			-.0747	-.0713	.0453
90.000	-.0226	-.0554	-.0196	.4789
120.000			-.0467	-.0066	.3241
135.000			-.0804	-.1989	.4851
150.000			-.1162	.1818	.3945
165.000			-.1226	.1576	.2039
195.000				.0833	.0901
210.000				.1067	.1812
225.000				-.0524	.3595
240.000				-.0136	.2601
270.000	-.0765	-.0697	-.0516	.4982
300.000				-.0691	.0498
330.000				-.0465	.0019

ALPHA (2) = -.231 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			-.0017	.0401
30.000			-.0683	-.0179	.0219
60.000			.0032	.0323	.0719
90.000	.0097	.0030	.0140	.3087
120.000			.1256	.2896	.5387
135.000			.1323	.2459	.5828
150.000			.1341	.3939	.6518
165.000			.1290	.3840	.4983
195.000				-.0125	-.0676
210.000				-.0115	.0042
225.000				-.0947	.2778
240.000				-.0923	.2195
270.000	-.0909	-.1551	-.1054	.3493
300.000				-.1401	.0376
330.000				-.0541	.0430

ALPHA (2) = -.231 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0053	.0274
30.000			-.1439	-.0385	.0463
60.000			-.0765	-.0580	.0655
90.000	-.0192	-.0628	-.0305	.3670
120.000			-.0158	.0811	.4033

ARC11-014IA19 OTS+STRUT SRB-OFF HPS-OFF EXT TANK   (REUT34)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.231 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
135.000			-.0432	-.1565	.5591
150.000			-.0736	.2378	.4390
165.000			-.1022	.2158	.2467
195.000				.1414	.1503
210.000				.1676	.2388
225.000				.0563	.4030
240.000				.0571	.3091
270.000	-.0501	-.0732	-.0756	.3947
300.000				-.0614	.0684
330.000				-.0332	.0331

ALPHA (2) = -.210 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			-.0006	.0407
30.000		-.2127	-.0597	.0488
60.000		-.1504	-.1531	.0266
90.000	-.0635	-.1611	-.0905	.2696
120.000		-.1916	-.0583	.2190
135.000		-.1877	-.1615	.2355
150.000		-.2096	.0205	.1037
165.000		-.2928	-.0220	-.0512
195.000			.3333	.4512
210.000			.3341	.4039
225.000			.2705	.4469
240.000			.2427	.4181
270.000	.0012	-.0071	-.0409	.2348
300.000			.0241	.0591
330.000			-.0204	.0073

ALPHA (3) = 3.930 BETA (1) = .003

X/L	.634	.742	.851	.986
PHI				
.000			.0146	.1523
30.000		-.1556	-.0212	.1382
60.000		-.0851	-.0337	.0689
90.000	.0035	-.0867	-.0749	.1700
120.000		-.0067	.1880	.4211
135.000		-.0022	.0287	.5481
150.000		-.0227	.2998	.4641
165.000		-.0781	.2723	.2690
195.000			.2179	.2016
210.000			.2459	.2887
225.000			.1871	.4209
240.000			.1857	.3424
270.000	-.0159	-.1018	-.1237	.1459
300.000			-.0337	.0490

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF EXT TANK   (REUT34)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.930 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   -.0211   .1265

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT35)   (22 OCT 74)

REFERENCE DATA				PARAMETRIC DATA		
SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT			ELV-IB = .000	ELV-OB =	.000
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT			RUDDER = .000	MACH =	.900
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT			GIMBAL = 2.000		
SCALE = .0200						

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.308 BETA (1) = .009

X/L	.634	.742	.851	.986
PHI				
.000			.0131	-.2595
30.000		-.1063	-.0044	-.2731
60.000		-.0750	-.0048	-.1900
90.000	-.0445	-.0252	.0145	.1838
120.000		.0047	-.0281	.0049
135.000		.0149	-.0445	.2674
150.000		.0161	.0885	.1162
165.000		-.0126	.0488	-.1307
195.000			.0041	-.1714
210.000			.0771	-.0210
225.000			-.0208	.2654
240.000			-.0614	-.0148
270.000	-.0435	-.0300	.0039	.1708
300.000			.0036	-.1838
330.000			-.0044	-.2938

ALPHA (2) = -.390 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.0073	-.2553
30.000		-.0864	.0035	-.2659
60.000		-.0360	.0213	-.2002
90.000	.0219	.0343	-.0134	.1136
120.000		.1099	.1307	.1647
135.000		.1245	.1003	.5094
150.000		.1511	.2836	.3780
165.000		.1063	.2384	.1110
195.000			-.0554	-.2492
210.000			-.0434	-.1075
225.000			-.0832	.1502
240.000			-.1082	-.0454
270.000	-.1105	-.1038	-.0298	.1699
300.000			-.0240	-.1866
330.000			-.0124	-.2803

ALPHA (2) = -.384 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.0353	-.2396
30.000		-.1264	.0190	-.2464
60.000		-.0917	.0105	-.1963
90.000	-.0548	-.0340	.0033	.2016
120.000		.0226	.0402	.0901

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT35)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.384 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
135.000		.0329	.0047	.3826
150.000		.0329	.1440	.1466
165.000		.0097	.1063	-.1083
195.000			.0464	-.1326
210.000			.1214	.0260
225.000			.0307	.3692
240.000			-.0026	.0760
270.000	-.0564	-.0346	-.0020	.2228
300.000			.0119	-.1778
330.000			.0105	-.2638

ALPHA (2) = -.345 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			.0035	-.2539
30.000		-.1495	-.0144	-.2591
60.000		-.1403	-.0390	-.1838
90.000	-.1116	-.1199	-.0324	.2104
120.000		-.1022	-.0937	-.0787
135.000		-.1257	-.1014	.1047
150.000		-.1634	-.0438	-.0389
165.000		-.2267	-.0757	-.2378
195.000			.1998	.1199
210.000			.2573	.1177
225.000			.1220	.3769
240.000			.0861	.0914
270.000	.0109	.0303	-.0102	.1170
300.000			.0281	-.1925
330.000			.0013	-.2820

ALPHA (3) = 3.903 BETA (1) = .006

X/L	.634	.742	.851	.986
PHI				
.000			.0113	-.2469
30.000		-.1541	-.0114	-.2657
60.000		-.1189	-.0248	-.2088
90.000	-.0552	-.0683	-.0959	.0961
120.000		.0369	.0645	.1166
135.000		.0541	.0235	.4523
150.000		.0583	.1680	.1615
165.000		.0371	.1248	-.0880
195.000			.0800	-.1345
210.000			.1539	.0247
225.000			.0661	.3937
240.000			.0261	.0713
270.000	-.0558	-.0857	-.1009	.0960
300.000			-.0178	-.2006

ARC11-014IA19 OTS+STRUT SRB-NOM HPS-NOM EXT TANK   (REUT35)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.903 BETA (1) = .006   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   -.0096 -.2827

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT36)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.008 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.2224	-.0048
30.000		.0246	.2129	.0279
60.000		.0563	.2108	.1521
90.000	-.0756	.0706	.1992	.4167
120.000		.1044	.1640	.1049
135.000		.1231	.1655	.3262
150.000		.1099	.2359	.2722
165.000		.0637	.1977	.0497
195.000			.1733	.0110
210.000			.2173	.1216
225.000			.1741	.3084
240.000			.1479	.0801
270.000	-.0616	.0652	.2000	.3411
300.000			.2133	.1544
330.000			.2103	.0145

ALPHA (2) = -.342 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.2046	.0192
30.000		.0281	.2075	.0077
60.000		.0999	.2286	.0489
90.000	.1007	.1920	.2361	.2688
120.000		.2520	.3276	.3607
135.000		.2624	.3053	.6385
150.000		.2860	.4531	.5367
165.000		.2364	.4179	.3211
195.000			.0414	-.0900
210.000			.0653	.0202
225.000			.0556	.2405
240.000			.0535	.0260
270.000	-.0766	.0274	.1443	.2218
300.000			.1676	.1325
330.000			.1909	.0209

ALPHA (2) = -.318 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			.2282	.0348
30.000		-.0292	.2187	.0504
60.000		.0105	.2211	.0593
90.000	-.0593	.0753	.2553	.2522
120.000		.1254	.2363	.2329
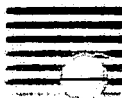
ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT36)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.316 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
135.000		.1193	.2366	.4316
150.000		.1131	.3140	.3252
165.000		.0728	.2810	.0983
195.000			.2292	.0854
210.000			.2719	.1949
225.000			.2307	.4182
240.000			.2117	.1816
270.000	-.0479	.0717	.2366	.2832
300.000			.2214	.1228
330.000			.2125	.0388

ALPHA (2) = -.417 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			.1960	.0264
30.000		.0252	.1865	.0404
60.000		.0242	.1477	.1410
90.000	-.0891	.0039	.1118	.2443
120.000		-.0134	.0037	.0098
135.000		-.0420	-.0342	.2509
150.000		-.0989	-.0507	.0237
165.000		-.1121	-.0615	-.1020
195.000			.3839	.3081
210.000			.4219	.3153
225.000			.3184	.4977
240.000			.2974	.2822
270.000	.1021	.1812	.2344	.2768
300.000			.2317	.0650
330.000			.2044	-.0007

ALPHA (3) = 3.717 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.1846	.0179
30.000		-.0427	.1743	.0093
60.000		.0194	.1702	.0232
90.000	.0730	.1187	.1751	.2522
120.000		.1835	.2701	.2779
135.000		.1995	.2609	.4647
150.000		.1966	.3379	.3331
165.000		.1694	.3050	.1071
195.000			.2733	.0991
210.000			.3145	.1883
225.000			.2665	.3628
240.000			.2471	.2060
270.000	.0860	.1111	.1684	.2521
300.000			.1745	.0394

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT36)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.717 BETA (1) =   .000   X/L   .   .634   .742   .851   .986
                                              PHI
                                              330.000   .1740 -.0004

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT37)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =.   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.149 BETA (1) =   .006   X/L   .634   .742   .851   .986
                                             PHI
                                              .000   .0001   .0679
                                             30.000   -.1931   -.0401   .0730
                                             60.000   -.1216   -.0476   .0502
                                             90.000   -.0605   -.0995   .0146   .2541
                                             120.000   -.0670   -.0153   .2853
                                             135.000   -.0680   -.1418   .4622
                                             150.000   -.0667   .1808   .3593
                                             165.000   -.2017   .1634   .1493
                                             195.000   .0828   .0456
                                             210.000   .1280   .1442
                                             225.000   -.0559   .3520
                                             240.000   -.0346   .2113
                                             270.000   -.0648   -.0916   .0001   .2683
                                             300.000   -.0491   .0550
                                             330.000   -.0459   .0703

ALPHA (2) = -.414 BETA (1) = -4.003   X/L   .634   .742   .851   .986
                                             PHI
                                              .000   .1758   .1057
                                             30.000   -.0909   .2056   .0942
                                             60.000   -.0208   .2060   .1317
                                             90.000   .0369   .0009   .1052   .3184
                                             120.000   .0863   .3303 -.4950
                                             135.000   .0962   .2804   .6472
                                             150.000   .0990   .4374   .8011
                                             165.000   .0182   .4181   .4099
                                             195.000   -.0133 -.0943
                                             210.000   .0009 -.0070
                                             225.000   -.0734   .2775
                                             240.000   -.1335   .1760
                                             270.000   -.1300   -.2165   -.0186   .3879
                                             300.000   .0544   .0856
                                             330.000   .1400   .1025

ALPHA (2) = -.459 BETA (2) =   .009   X/L   .634   .742   .851   .986
                                             PHI
                                              .000   .1427   .0873
                                             30.000   -.1813   .1252   .1027
                                             60.000   -.1179   .0716   .1072
                                             90.000   -.0510   -.1086   .0282   .4154
                                             120.000   -.0695   .1449   .3496

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT37)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.459 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
135.000		-.0568	.0514	.5321
150.000		-.0487	.2591	.4057
165.000		-.1775	.2382	.2019
195.000			.1600	.1019
210.000			.1957	.2139
225.000			.1134	.4155
240.000			.1094	.2732
270.000	-.0633	-.1048	.0064	.4553
300.000			.0619	.1101
330.000			.1207	.0935

ALPHA (2) = -.468 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			.1731	.1069
30.000		-.2560	.1459	.1042
60.000		-.2092	.0599	.0827
90.000	-.1067	-.2403	-.0314	.3500
120.000		-.2229	-.1365	.1783
135.000		-.1540	-.1799	.2250
150.000		-.1526	-.0304	.0499
165.000		-.1623	-.0703	-.0930
195.000			.3613	.3877
210.000			.3816	.3702
225.000			.3011	.5022
240.000			.2815	.4016
270.000	.0306	.0161	.0951	.3351
300.000			.2059	.1223
330.000			.2002	.0828

ALPHA (3) = 3.864 BETA (1) = .003

X/L	.634	.742	.851	.986
PHI				
.000			.2514	.1013
30.000		-.1829	.2265	.0828
60.000		-.1140	.2009	.1236
90.000	-.0369	-.1304	.0794	.3101
120.000		-.0435	.2645	.3752
135.000		-.0218	.2581	.4972
150.000		-.0637	.3347	.4231
165.000		-.1551	.3015	.2167
195.000			.2403	.1541
210.000			.2744	.2550
225.000			.2488	.4045
240.000			.2323	.2911
270.000	-.0618	-.1189	.0449	.3280
300.000			.2012	.1125
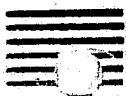
ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT37)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.864 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   .2226 .0758

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT38)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			-.0052	.0075
30.000		-.1454	-.0503	.0083
60.000		-.0759	-.0768	.0446
90.000	-.0261	-.0577	-.0191	.4783
120.000		-.0497	-.0062	.3237
135.000		-.0841	-.1992	.4864
150.000		-.1195	.1822	.3989
165.000		-.1300	.1589	.2084
195.000			.0824	.0913
210.000			.1073	.1776
225.000			-.0540	.3523
240.000			-.0149	.2539
270.000	-.0798	-.0703	-.0545	.4926
300.000			-.0696	.0465
330.000			-.0497	-.0007

ALPHA (2) = -.387 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			-.0026	.0412
30.000		-.0667	-.0209	.0251
60.000		.0037	.0322	.0766
90.000	.0088	.0058	.0162	.3155
120.000		.1266	.2918	.5363
135.000		.1332	.2350	.5829
150.000		.1335	.3910	.6538
165.000		.1282	.3820	.4981
195.000			-.0116	-.0648
210.000			-.0048	.0072
225.000			-.0950	.2775
240.000			-.0943	.2202
270.000	-.0901	-.1546	-.1033	.3501
300.000			-.1421	.0383
330.000			-.0550	.0431

ALPHA (2) = -.318 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0019	.0267
30.000		-.1437	-.0402	.0469
60.000		-.0767	-.0610	.0666
90.000	-.0203	-.0622	-.0288	.3864
120.000		-.0181	.0821	.4037

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK (REUT38)

SECTION (1)EXTERNAL TANK DEPENDENT VARIABLE CP

ALPHA (2) = -.318 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
135.000		-.0444	-.1537	.5593
150.000		-.0745	.2375	.4473
165.000		-.1035	.2191	.2477
195.000			.1420	.1457
210.000			.1656	.2335
225.000			.0551	.4018
240.000			.0727	.3068
270.000	-.0505	-.0729	-.0732	.4086
300.000			-.0621	.0690
330.000			-.0371	.0347

ALPHA (2) = -.354 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			-.0017	.0425
30.000		-.2087	-.0580	.0504
60.000		-.1476	-.1501	.0274
90.000	-.0601	-.1566	-.0819	.2697
120.000		-.1858	-.0537	.2235
135.000		-.1909	-.1621	.2355
150.000		-.2076	.0279	.1099
165.000		-.2913	-.0168	-.0372
195.000			.3348	.4546
210.000			.3571	.4049
225.000			.2732	.4493
240.000			.2447	.4191
270.000	-.0001	-.0031	-.0349	.2465
300.000			.0256	.0635
330.000			-.0177	.0140

ALPHA (3) = 3.939 BETA (1) = .000

X/L	.634	.742	.851	.986
PHI				
.000			.0233	.1631
30.000		-.1495	-.0180	.1424
60.000		-.0792	-.0298	.0769
90.000	.0096	-.0788	-.0678	.1766
120.000		.0005	.1989	.4307
135.000		.0033	.0462	.5544
150.000		-.0188	.3101	.4742
165.000		-.0707	.2850	.2783
195.000			.2230	.2066
210.000			.2546	.2919
225.000			.1952	.4255
240.000			.1787	.3449
270.000	-.0126	-.0970	-.1203	.1517
300.000			-.0293	.0556

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM EXT TANK   (REUT38)

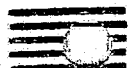SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.939 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                                PHI
                                               330.000   -.0151   .1346

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT39)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -8.139 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			-.0010	-.2788
30.000		-.0988	-.0160	-.2870
60.000		-.0552	-.0239	-.1888
90.000	-.0134	-.0164	-.0245	.2268
120.000		.0129	-.0750	.0073
135.000		.0275	-.0911	.2186
150.000		.0349	.0722	.0993
165.000		.0253	.0505	-.1062
195.000			.0485	-.1383
210.000			.0477	-.0686
225.000			-.0564	.2047
240.000			-.0526	-.0193
270.000	-.0234	-.0356	-.0306	.2400
300.000			-.0154	-.1710
330.000			-.0200	-.3076

ALPHA (2) = -4.032 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.0161	-.2652
30.000		-.1034	.0018	-.2693
60.000		-.0714	.0006	-.1898
90.000	-.0429	-.0090	.0203	.1885
120.000		.0183	-.0104	.0199
135.000		.0338	-.0285	.2553
150.000		.0426	.1112	.1153
165.000		.0366	.0797	-.0962
195.000			.0754	-.1208
210.000			.0778	-.0134
225.000			-.0001	.2754
240.000			.0005	.0179
270.000	-.0465	-.0222	.0055	.2118
300.000			.0045	-.1808
330.000			-.0042	-.2918

ALPHA (3) = -.228 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.0157	-.2545
30.000		-.0890	.0111	-.2567
60.000		-.0410	.0306	-.1889
90.000	-.0128	.0429	.0580	.1091
120.000		.0911	.1503	.1723

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT39)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.228 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
135.000		.1084	.1684	.5009
150.000		.1225	.3127	.3703
165.000		.0777	.3638	.1636
195.000			.2261	-.0434
210.000			-.0307	-.1189
225.000 .			-.0016	.0843
240.000			.0000	-.0517
270.000	-.0844	-.0798	-.0643	.2821
300.000			-.0126	-.1816
330.000			-.0032	-.2776

ALPHA (3) = -.249 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			.0257	-.2583
30.000		-.1187	.0110	-.2569
60.000		-.0846	.0045	-.1952
90.000	-.0502	-.0211	-.0094	.2094
120.000		.0360	.0346	.1010
135.000		.0523	-.0044	.3585
150.000		.0666	.1425	.1314
165.000		.0612	.1114	-.0768
195.000			.1074	-.1032
210.000			.1059	.0315
225.000			.0404	.3547
240.000			.0406	.0775
270.000	-.0576	-.0304	-.0118	.2155
300.000			.0110	-.1760
330.000			.0083	-.2746

ALPHA (3) = -.261 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			.0045	-.2643
30.000		-.1371	-.0084	-.2706
60.000		-.1096	-.0309	-.1992
90.000	-.0811	-.0735	-.0914	.2689
120.000		.0067	-.0254	-.0687
135.000		.0096	-.0369	.0835
150.000		.0045	.1101	.0918
165.000		-.0205	.0280	-.0725
195.000			.2283	.1079
210.000			.2320	.1503
225.000			.1817	.4021
240.000			.1663	.0975
270.000	-.0381	.0243	.0687	.1042
300.000			.0368	-.1793

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT39)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.261 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
330.000			.0077	-.2821

ALPHA (4) = 4.032 BETA (1) = .003

X/L	.634	.742	.851	.986
PHI				
.000			.0161	-.2434
30.000		-.1502	-.0032	-.2526
60.000		-.1090	-.0179	-.1908
90.000	-.0533	-.0476	-.0925	.0870
120.000		.0459	.0653	.1171
135.000		.0680	.0243	.4137
150.000		.0856	.1729	.1516
165.000		.0830	.1365	-.0660
195.000			.1259	-.0901
210.000			.1267	.0498
225.000			.0802	.3918
240.000			.0762	.0815
270.000	-.0577	-.0669	-.0964	.1074
300.000			-.0132	-.1681
330.000			-.0054	-.2675

ALPHA (5) = 7.920 BETA (1) = .003

X/L	.634	.742	.851	.986
PHI				
.000			.0001	-.2445
30.000		-.1650	-.0197	-.2601
60.000		-.1251	-.0440	-.2055
90.000	-.0416	-.0693	-.1292	.0210
120.000		.0412	.0653	.0886
135.000		.0632	.0152	.4304
150.000		.0888	.1675	.1412
165.000		.0852	.1281	-.0785
195.000			.1272	-.0979
210.000			.1764	.0362
225.000			.0850	.3770
240.000			.0836	.0661
270.000	-.0553	-.1082	-.1684	-.0082
300.000			-.0364	-.1959
330.000			-.0185	-.2803

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT40)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   = 1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL = 1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -7.992 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                           PHI
                                           .000   .2267 -.0083
                                           30.000   -.0780 .2111   .0143
                                           60.000   -.0912 .2125   .1923
                                           90.000 -.1354 -.0093 .1450   .4144
                                           120.000   .0277 .0984   .0761
                                           135.000   .0464 .0908   .2697
                                           150.000   .0532 .2006   .2374
                                           165.000   .0447 .1674   .0361
                                           195.000   .1711   .0298
                                           210.000   .1790   .1115
                                           225.000   .1143   .2908
                                           240.000   .0929   .0738
                                           270.000 -.1590 -.0410 .1221   .4116
                                           300.000   .2236   .2162
                                           330.000   .2134   .0058

ALPHA (2) = -4.080 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                           PHI
                                           .000   .2339   .0085
                                           30.000   .0233 .2229   .0444
                                           60.000   .0393 .2193   .1530
                                           90.000 -.1070   .0617 .2105   .3889
                                           120.000   .0864 .1744   .1100
                                           135.000   .0993 .1676   .3239
                                           150.000   .0917 .2461   .2543
                                           165.000   .0917 .2236   .0553
                                           195.000   .2093   .0483
                                           210.000   .2095   .1350
                                           225.000   .1851   .3254
                                           240.000   .1848   .0919
                                           270.000 -.0975   .0546 .2105   .3352
                                           300.000   .2217   .1622
                                           330.000   .2193   .0266

ALPHA (3) = -.225 BETA (1) = -4.000   X/L   .634   .742   .851   .986
                                           PHI
                                           .000   .2127   .0187
                                           30.000   -.0385 .2184   .0250
                                           60.000   .0341 .2404   .0912
                                           90.000   .0498   .1453 .2924   .3157
                                           120.000   .2054 .3333   .3238

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT40)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.225 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
135.000		.2303	.3578	.6199
150.000		.2378	.4683	.5439
165.000		.1846	.5170	.3717
195.000			.3820	.1171
210.000			.1298	.0382
225.000			.1678	.2087
240.000			.1696	.0973
270.000	-.0578	.0827	.1759	.3158
300.000			.1739	.0359
330.000			.1944	.0120

ALPHA (3) = -.159 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.2180	.0241
30.000		-.0427	.2073	.0409
60.000		.0075	.2110	.0664
90.000	-.0245	.0992	.2448	.2525
120.000		.1425	.2304	.2173
135.000		.1541	.2277	.3970
150.000		.1607	.3097	.2887
165.000		.1548	.2774	.0926
195.000			.2645	.0919
210.000			.2647	.1797
225.000			.2281	.3992
240.000			.2281	.1761
270.000	-.0092	.0984	.2306	.2759
300.000			.2104	.1133
330.000			.2034	.0277

ALPHA (3) = -.312 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			.2208	.0418
30.000		.0655	.2117	.0425
60.000		.0889	.1901	.0409
90.000	-.1273	.0983	.2010	.3550
120.000		.1278	.1789	.1197
135.000		.1245	.1733	.2259
150.000		.1113	.2718	.2523
165.000		.0613	.1698	.0175
195.000			.4036	.3001
210.000			.4373	.3801
225.000			.3817	.5739
240.000			.3596	.3028
270.000	.0422	.1087	.3044	.3270
300.000			.2521	.1304

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT40)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.312 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
330.000			.2306	.0311

ALPHA (4) = 3.685 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.1784	.0112
30.000		-.0440	.1705	.0071
60.000		.0222	.1648	.0176
90.000	.0753	.1329	.1651	.2394
120.000		.1948	.2658	.2696
135.000		.2132	.2534	.4310
150.000		.2219	.3374	.2979
165.000		.2173	.3112	.1098
195.000			.3054	.1222
210.000			.3042	.1898
225.000			.2729	.3514
240.000			.2729	.2148
270.000	.0796	.1190	.1569	.2382
300.000			.1689	.0323
330.000			.1695	-.0034

ALPHA (5) = 8.073 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.1315	-.0061
30.000		-.0450	.1240	-.0230
60.000		.0149	.1019	-.0087
90.000	.1301	.1155	.0793	.1827
120.000		.1942	.2577	.2350
135.000		.2130	.2457	.3923
150.000		.2257	.3215	.2686
165.000		.2276	.2960	.0878
195.000			.3073	.1054
210.000			.3117	.1642
225.000			.2812	.3077
240.000			.2805	.1839
270.000	.1238	.1056	.0697	.1883
300.000			.1248	.0049
330.000			.1323	-.0285

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT41)   (22 OCT 74)

REFERENCE DATA

PARAMETRIC DATA

ELV-IB =	.000	ELV-OB =	.000
RUDDER =	.000	MACH =	1.250
GIMBAL =	1.000		

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -8.232 BETA (1) = -.006

X/L	.634	.742	.851	.986
PHI				
.000			-.0300	-.0044
30.000		-.2050	-.0661	.0034
60.000		-.1283	-.0950	.1278
90.000	-.0499	-.1076	.0069	.3049
120.000		-.0472	-.0533	.1965
135.000		-.0531	-.1590	.3588
150.000		-.0333	.1646	.3100
165.000		-.0435	.1562	.1262
195.000			.1429	.0786
210.000			.1421	.0990
225.000			-.0378	.2918
240.000			-.0344	.1385
270.000	-.0672	-.1336	.0022	.3132
300.000			-.0826	.1615
330.000			-.0704	-.0009

ALPHA (2) = -4.098 BETA (1) = -.006

X/L	.634	.742	.851	.986
PHI				
.000			.0265	.0695
30.000		-.1903	-.0140	.0783
60.000		-.1179	-.0265	.0385
90.000	-.0544	-.0924	.0255	.2704
120.000		-.0700	.0226	.2967
135.000		-.0636	-.0977	.4436
150.000		-.0255	.2152	.3488
165.000		-.0448	.2051	.1530
195.000			.1806	.1162
210.000			.1820	.1435
225.000			.0370	.3399
240.000			.0360	.2344
270.000	-.0694	-.0975	.0172	.2742
300.000			-.0296	.0548
330.000			-.0283	.0720

ALPHA (3) = -.243 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.1834	.1053
30.000		-.1086	.2012	.0978
60.000		-.0459	.2003	.1240
90.000	.0388	-.0115	.1803	.2858
120.000		-.0028	.3355	.5355

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT41)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.243 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
135.000		-.0238	.3584	.7775
150.000		.0524	.4880	.6438
165.000		.0378	.5348	.4734
195.000			.3440	.1581
210.000			.1006	.0220
225.000			.0964	.1655
240.000			.0979	.1468
270.000	-.1388	-.1326	-.0531	.3641
300.000			.0900	.1015
330.000			.1799	.1008

ALPHA (3) = -.171 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.1722	.0874
30.000		-.1893	.1709	.1000
60.000		-.1198	.0979	.1060
90.000	-.0523	-.0912	.0264	.3946
120.000		-.0757	.1573	.3349
135.000		-.0477	.1122	.4687
150.000		-.0070	.2933	.3892
165.000		-.0178	.2736	.2024
195.000			.2435	.1638
210.000			.2406	.2042
225.000			.1657	.3843
240.000			.1613	.2763
270.000	-.0726	-.1050	.0006	.4259
300.000			.0679	.1099
330.000			.1380	.0951

ALPHA (3) = -.171 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			.1782	.1028
30.000		-.2674	.1785	.0974
60.000		-.1964	.0823	.1035
90.000	-.1195	-.1328	-.0878	.4296
120.000		-.0776	.0651	.1369
135.000		-.0643	.0579	.2253
150.000		-.0419	.1896	.2252
165.000		-.0593	.1059	.0424
195.000			.3699	.3703
210.000			.3723	.4659
225.000			.3659	.6659
240.000			.3627	.4678
270.000	.0166	-.0263	.1801	.3139
300.000			.1974	.1187

TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014).

DATE 01 MAY 75

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT41)   (22 OCT 74)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT	
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT	
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT	
SCALE = .0200		

ELV-IB =	.000	ELV-OB =	.000
RUDDER =	.000	MACH =	1.250
GIMBAL =	1.000		

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

ALPHA (1) = -8.232 BETA (1) = -.006

X/L	.634	.742	.851	.986
PHI				
.000			-.0300	-.0044
30.000		-.2050	-.0661	.0034
60.000		-.1283	-.0950	.1278
90.000	-.0499	-.1076	.0069	.3049
120.000		-.0472	-.0533	.1965
135.000		-.0531	-.1590	.3588
150.000		-.0333	.1646	.3100
165.000		-.0435	.1562	.1262
195.000			.1429	.0786
210.000			.1421	.0990
225.000			-.0378	.2918
240.000			-.0344	.1385
270.000	-.0672	-.1336	.0022	.3132
300.000			-.0826	.1615
330.000			-.0704	-.0009

ALPHA (2) = -4.098 BETA (1) = -.006

X/L	.634	.742	.851	.986
PHI				
.000			.0265	.0695
30.000		-.1903	-.0140	.0783
60.000		-.1179	-.0265	.0385
90.000	-.0544	-.0924	.0255	.2704
120.000		-.0700	.0226	.2967
135.000		-.0636	-.0977	.4436
150.000		-.0255	.2152	.3488
165.000		-.0448	.2051	.1530
195.000			.1806	.1162
210.000			.1820	.1435
225.000			.0370	.3399
240.000			.0360	.2344
270.000	-.0694	-.0975	.0172	.2742
300.000			-.0296	.0548
330.000			-.0283	.0720

ALPHA (3) = -.243 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.1834	.1053
30.000		-.1086	.2012	.0978
60.000		-.0459	.2003	.1240
90.000	.0388	-.0115	.1803	.2858
120.000		-.0028	.3355	.5355

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT41)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.243 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
135.000		-.0238	.3584	.7775
150.000		.0524	.4880	.6438
165.000		.0378	.5348	.4734
195.000			.3440	.1581
210.000			.1006	.0220
225.000			.0964	.1655
240.000			.0979	.1468
270.000	-.1388	-.1326	-.0531	.3641
300.000			.0900	.1015
330.000			.1799	.1008

ALPHA (3) = -.171 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.1722	.0874
30.000		-.1893	.1709	.1000
60.000		-.1198	.0979	.1060
90.000	-.0523	-.0512	.0264	.3946
120.000		-.0757	.1573	.3349
135.000		-.0477	.1122	.4687
150.000		-.0070	.2933	.3892
165.000		-.0178	.2736	.2024
195.000			.2435	.1638
210.000			.2406	.2042
225.000			.1657	.3843
240.000			.1613	.2763
270.000	-.0726	-.1050	.0006	.4259
300.000			.0679	.1099
330.000			.1380	.0951

ALPHA (3) = -.171 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			.1782	.1028
30.000		-.2674	.1785	.0974
60.000		-.1964	.0823	.1035
90.000	-.1195	-.1328	-.0878	.4296
120.000		-.0775	.0651	.1369
135.000		-.0643	.0579	.2253
150.000		-.0419	.1896	.2252
165.000		-.0593	.1059	.0424
195.000			.3699	.3703
210.000			.3723	.4659
225.000			.3669	.6659
240.000			.3627	.4678
270.000	.0166	-.0263	.1801	.3139
300.000			.1974	.1187

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT41)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.171 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
330.000			.1923	.0868

ALPHA (4) = 7.860 BETA (1) = -.003

X/L	.634	.742	.851	.986
PHI				
.000			.2498	.0952
30.000		-.0831	.2092	.0674
60.000		-.0199	.1777	.0655
90.000	.0121	.0150	.0149	.1641
120.000		.1172	.3238	.3423
135.000		.1365	.3210	.4598
150.000		.1529	.3938	.4052
165.000		.1656	.3675	.2305
195.000			.3392	.2096
210.000			.3368	.2457
225.000			.3091	.3420
240.000			.3096	.2638
270.000	-.0020	-.0180	.0362	.1866
300.000			.1912	.0658
330.000			.2135	.0613

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT42)   (22 OCT 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT
SCALE =   .0200

ELV-IB =   .000   ELV-CB =   .000
RUDDER =   .000   MACH   =   1.400
GIMBAL =   1.000

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.059 BETA (1) =   .000

X/L PHI	.634	.742	.851	.986
.000			-.0007	.0087
30.000		-.1407	-.0410	.0129
60.000		-.0737	-.0625	.0466
90.000	-.0154	-.0558	-.0130	.4636
120.000		-.0842	.0504	.3476
135.000		-.0907	-.1056	.5004
150.000		-.1043	.2367	.4177
165.000		-.1280	.2305	.2444
195.000			.1898	.1935
210.000			.1840	.2002
225.000			.0895	.3396
240.000			.0584	.2782
270.000	-.0765	-.0839	-.0100	.4651
300.000			-.0560	.0504
330.000			-.0424	.0034

ALPHA (2) = -.183 BETA (1) = -3.997

X/L PHI	.634	.742	.851	.986
.000			.0010	.0547
30.000		-.0683	-.0244	.0390
60.000		-.0066	.0294	.0839
90.000	.0149	.0031	.0906	.2691
120.000		.0203	.2332	.5989
135.000		-.0025	.1979	.7526
150.000		-.0094	.4316	.6757
165.000		.0505	.4888	.5363
195.000			.2945	.2361
210.000			.0838	.0682
225.000			.1102	.1920
240.000			.0838	.2057
270.000	-.0896	-.1129	-.1193	.2357
300.000			-.1123	.0564
330.000			-.0380	.0509

ALPHA (2) = -.195 BETA (2) =   .012

X/L PHI	.634	.742	.851	.986
.000			.0021	.0333
30.000		-.1447	-.0315	.0485
60.000		-.0767	-.0450	.0612
90.000	-.0204	-.0512	-.0127	.3295
120.000		-.0414	.1517	.4224

ARC11-014TA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT42)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.195 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
135.000		-.0532	-.0391	.5413
150.000		-.0804	.3037	.4643
165.000		-.0845	.2954	.2786
195.000			.2521	.2445
210.000			.2534	.2500
225.000			.1777	.3830
240.000			.1502	.3158
270.000	-.0576	-.0748	-.0271	.3611
300.000			-.0474	.0672
330.000			-.0281	.0393

ALPHA (2) =   .027 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			.0011	.0597
30.000		-.2087	-.0305	.0564
60.000		-.1428	-.1208	.0572
90.000	-.0599	-.1055	-.1309	.2554
120.000		-.0950	.1032	.2016
135.000		-.1039	.1068	.2619
150.000		-.1355	.2167	.2806
165.000		-.1815	.1489	.1440
195.000			.3020	.4102
210.000			.3382	.4703
225.000			.2779	.6130
240.000			.1580	.5121
270.000	-.0004	-.0187	.0515	.2746
300.000			.0235	.0900
330.000			-.0242	.0305

ALPHA (3) = 3.924 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.0257	.1543
30.000		-.1515	-.0100	.1420
60.000		-.0780	-.0215	.0583
90.000	.0047	-.0644	-.0818	.1821
120.000		-.0141	.2393	.4309
135.000		-.0063	.1478	.5286
150.000		-.0190	.3768	.4846
165.000		.0200	.3597	.3056
195.000			.3261	.3003
210.000			.3247	.3035
225.000			.2504	.3974
240.000			.2501	.3452
270.000	-.0182	-.0831	-.1092	.1490
300.000			-.0229	.0509

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT42)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.924 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                                PHI
                                                330.000   -.0095   .1398

ALPHA (4) = 7.809 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                                PHI
                                                   .000   .2328   .1919
                                                 30.000   -.1362   .2074   .1508
                                                 60.000   -.0712   .0975   .1148
                                                 90.000   .0504   -.0108   -.1158   .1175
                                                120.000   .0574   .2928   .3750
                                                135.000   .0800   .2841   .4860
                                                150.000   .0921   .4008   .4513
                                                165.000   .0818   .3771   .2909
                                                195.000   .3617   .3064
                                                210.000   .3615   .3247
                                                225.000   .2857   .3572
                                                240.000   .2863   .3128
                                                270.000   .0350   -.0120   -.1155   .1323
                                                300.000   .1003   .1205
                                                330.000   .2113   .1392

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT43)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -8.133 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                               PHI
                                                .000   .0104 -.2692
                                              30.000   -.0877 -.0031 -.2703
                                              60.000   -.0428 -.0097 -.1607
                                              90.000   -.0235 -.0057 -.0127   .2125
                                             120.000   .0138 -.0787 -.0006
                                             135.000   .0300 -.0897   .2115
                                             150.000   .0390   .0704   .1001
                                             165.000   .0322   .0401 -.1137
                                             195.000   .0499 -.1539
                                             210.000   .0457 -.0798
                                             225.000   -.0471   .1647
                                             240.000   -.1060 -.0678
                                             270.000   -.0294 -.0196 -.0143   .1743
                                             300.000   .0019 -.1442
                                             330.000   -.0060 -.2937

ALPHA (2) = -4.002 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                               PHI
                                                .000   .0191 -.2618
                                              30.000   -.1062   .0046 -.2647
                                              60.000   -.0729   .0034 -.1869
                                              90.000   -.0496 -.0090   .0233   .1839
                                             120.000   .0179 -.0067   .0081
                                             135.000   .0319 -.0268   .2475
                                             150.000   .0430   .1140   .1115
                                             165.000   .0388   .0806 -.1009
                                             195.000   .0719 -.1266
                                             210.000   .0759 -.0208
                                             225.000   -.0008   .2721
                                             240.000   -.0420   .0128
                                             270.000   -.0498 -.0225   .0100   .2114
                                             300.000   .0048 -.1773
                                             330.000   -.0022 -.2893

ALPHA (3) = -.342 BETA (1) = -4.000   X/L   .634   .742   .851   .986
                                               PHI
                                                .000   .0025 -.2688
                                              30.000   -.0953   .0011 -.2731
                                              60.000   -.0488   .0196 -.2017
                                              90.000   -.0164   .0344   .0474   .1082
                                             120.000   .0818   .1381   .1651

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT43)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.342 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
135.000		.0984	.1582	.4977
150.000		.1141	.3046.	.3617
165.000		.0683	.3543	.1520
195.000			.2157	-.0585
210.000			-.0422	-.1320
225.000			-.0140	.0733
240.000			-.0487	-.0671
270.000	-.0912	-.0945	-.0737	.2801
300.000			-.0245	-.1972
330.000			-.0115	-.2947

ALPHA (3) = -.357 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			.0183	-.2637
30.000		-.1274	.0033	-.2639
60.000		-.0934	-.0018	-.2003
90.000	-.0569	-.0269	-.0077	.2065
120.000		.0260	.0306	.0938
135.000		.0408	-.0049	.3568
150.000		.0564	.1376	.1312
165.000		.0521	.1056	-.0836
195.000			.0940	-.1183
210.000			.1173	.0138
225.000			.0320	.3439
240.000			-.0075	.0665
270.000	-.0597	-.0382	-.0160	.2169
300.000			.0055	-.1855
330.000			.0014	-.2809

ALPHA (3) = -.288 BETA (3) = 4.022

X/L	.634	.742	.851	.986
PHI				
.000			.0105	-.2592
30.000		-.1321	-.0064	-.2637
60.000		-.1114	-.0285	-.1975
90.000	-.0842	-.0739	-.0850	.2757
120.000		.0033	-.0208	-.0677
135.000		.0063	-.0341	.0844
150.000		.0039	.1109	.0923
165.000		-.0212	.0261	-.0818
195.000			.2276	.1087
210.000			.2779	.1503
225.000			.1812	.3970
240.000			.1079	.1535
270.000	-.0364	.0249	.0722	.1120
300.000			.0408	-.1728

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT43)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.288 BETA (3) = 4.022

X/L	.634	.742	.851	.986
PHI				
330.000			.0083	-.2736

ALPHA (4) = 3.924 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.0074	-.2651
30.000		-.1519	-.0107	-.2784
60.000		-.1162	-.0230	-.2021
90.000	-.0570	-.0564	-.0971	.0908
120.000		.0421	.0554	.1114
135.000		.0613	.0146	.4068
150.000		.0792	.1624	.1448
165.000		.0778	.1267	-.0744
195.000			.1237	-.1032
210.000			.1653	.0240
225.000			.0664	.3774
240.000			.0309	.0662
270.000	-.0640	-.0775	-.0931	.0932
300.000			-.0173	-.1916
330.000			-.0109	-.2929

ALPHA (5) = 7.962 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.0140	-.2390
30.000		-.1518	-.0020	-.2530
60.000		-.1167	-.0237	-.2059
90.000	-.0368	-.0625	-.1173	.0166
120.000		.0516	.0770	.0962
135.000		.0735	.0290	.4382
150.000		.0953	.1798	.1580
165.000		.0933	.1374	-.0659
195.000			.1336	-.0912
210.000			.1864	.0424
225.000			.0942	.3879
240.000			.0642	.0746
270.000	-.0540	-.1036	-.1553	.0000
300.000			-.0229	-.1853
330.000			-.0070	-.2730

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT44)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -8.106 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                                PHI
                                                .000   .2339 -.0066
                                                30.000   -.1079 .2201   .0214
                                                60.000   -.0987 .2193   .1943
                                                90.000   -.1376 -.0239 .1494   .4145
                                                120.000   .0222 .1272   .0773
                                                135.000   .0426 .1306   .2696
                                                150.000   .0528 .2263   .2340
                                                165.000   .0542 .2006   .0382
                                                195.000   .1748   .0497
                                                210.000   .1822   .1226
                                                225.000   .1299   .2994
                                                240.000   .1066   .0870
                                                270.000   -.1586 -.0314 .1281   .4420
                                                300.000   .2281   .2231
                                                330.000   .2207   .0104

ALPHA (2) = -4.038 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                                PHI
                                                .000   .2362   .0110
                                                30.000   .0375 .2294   .0468
                                                60.000   .0599 .2270   .1534
                                                90.000   -.1036 .0809 .2202   .3984
                                                120.000   .1080 .1881   .1141
                                                135.000   .1237 .1862   .3256
                                                150.000   .1277 .2636   .2630
                                                165.000   .1229 .2318   .0649
                                                195.000   .2262   .0515
                                                210.000   .2373   .1384
                                                225.000   .1897   .3288
                                                240.000   .1668   .1012
                                                270.000   -.1014 .0662 .2196   .3538
                                                300.000   .2264   .1695
                                                330.000   .2249   .0307

ALPHA (3) = -.363 BETA (1) = -4.003   X/L   .634   .742   .851   .986
                                                PHI
                                                .000   .2085   .0114
                                                30.000   -.0357 .2123   .0162
                                                60.000   .0439 .2338   .0757
                                                90.000   .0515 .1582 .2855   .3121
                                                120.000   .2115 .3289   .3352
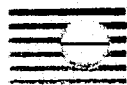
ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT44)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.363 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
135.000		.2311	.3552	.6350
150.000		.2431	.4695	.5414
165.000		.1833	.5149	.3678
195.000			.3769	.1096
210.000			.1014	.0344
225.000			.1596	.2100
240.000			.1373	.0896
270.000	-.0662	.0864	.1740	.2884
300.000			.1710	.0373
330.000			.1911	.0038

ALPHA (3) = -.363 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.2145	.0182
30.000		-.0489	.2031	.0347
60.000		.0047	.2056	.0870
90.000	-.0129	.1181	.2435	.2809
120.000		.1630	.2236	.2043
135.000		.1773	.2226	.3888
150.000		.1771	.3054	.2948
165.000		.1733	.2741	.0989
195.000			.2667	.0826
210.000			.2792	.1699
225.000			.2286	.3865
240.000			.2059	.1582
270.000	-.0033	.1034	.2348	.2840
300.000			.2126	.1285
330.000			.2036	.0232

ALPHA (3) = -.393 BETA (3) = 4.022

X/L	.634	.742	.851	.986
PHI				
.000			.2157	.0334
30.000		.0572	.2065	.0351
60.000		.0734	.1848	.0428
90.000	-.0847	.1010	.1974	.3300
120.000		.1297	.1733	.1162
135.000		.1282	.1629	.2294
150.000		.1179	.2680	.2525
165.000		.0682	.1629	.0159
195.000			.3965	.2940
210.000			.4331	.3765
225.000			.3743	.5774
240.000			.3130	.3036
270.000	.0332	.1356	.2984	.3201
300.000			.2540	.1268

ARC11-014IA19 OTS   SRB-NOM HPS-OFF EXT TANK   (REUT44)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.393 BETA (3) = 4.022

X/L	.634	.742	.851	.986
PHI				
330.000			.2247	.0226

ALPHA (4) = 3.888 BETA (1) = .000

X/L	.634	.742	.851	.986
PHI				
.000			.1737	.0030
30.000		-.0636	.1644	-.0011
60.000		.0051	.1605	.0150
90.000	.0773	.1264	.1541	.2351
120.000		.1891	.2572	.2628
135.000		.2114	.2452	.4306
150.000		.2200	.3321	.2942
165.000		.2183	.3048	.1001
195.000			.2973	.1101
210.000			.3109	.1799
225.000			.2676	.3460
240.000			.2466	.2045
270.000	.0772	.1158	.1494	.2369
300.000			.1658	.0250
330.000			.1644	-.0114

ALPHA (5) = 7.977 BETA (1) = .000

X/L	.634	.742	.851	.986
PHI				
.000			.1390	-.0042
30.000		-.0456	.1337	-.0155
60.000		.0135	.1160	-.0083
90.000	.1275	.1174	.0815	.1840
120.000		.1944	.2707	.2465
135.000		.2133	.2620	.3961
150.000		.2265	.3385	.2942
165.000		.2283	.3126	.1072
195.000			.3067	.1126
210.000			.3213	.1793
225.000			.2786	.3411
240.000			.2559	.2139
270.000	.1214	.0960	.0566	.1615
300.000			.1251	.0063
330.000			.1344	-.0255
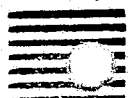
ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT45)   (22 OCT 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT	ELV-IB = .000	ELV-OB = .000
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT	RUDDER = .000	MACH = 1.250
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT	GIMBAL = 1.000	
SCALE = .0200			

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -8.244 BETA (1) = -.009

X/L	.634	.742	.851	.986
PHI				
.000			-.0177	.0099
30.000		-.2046	-.0576	.0290
60.000		-.1278	-.0868	.1333
90.000	-.0511	-.1056	.0152	.3104
120.000		-.0431	-.0447	.1932
135.000		-.0447	-.1430	.3566
150.000		-.0307	.1719	.3072
165.000		-.0439	.1618	.1211
195.000			.1494	.0863
210.000			.1480	.1042
225.000			-.0318	.2992
240.000			-.0466	.1415
270.000	-.0696	-.1372	.0070	.3258
300.000			-.0800	.1762
330.000			-.0644	.0247

ALPHA (2) = -3.936 BETA (1) = -.009

X/L	.634	.742	.851	.986
PHI				
.000			.0264	.0687
30.000		-.1931	-.0148	.0755
60.000		-.1220	-.0301	.0469
90.000	-.0576	-.0916	.0219	.2869
120.000		-.0683	.0214	.3014
135.000		-.0574	-.1041	.4466
150.000		-.0238	.2124	.3454
165.000		-.0463	.2039	.1483
195.000			.1864	.1114
210.000			.1839	.1447
225.000			.0435	.3445
240.000			.0377	.2296
270.000	-.0701	-.0976	.0168	.2816
300.000			-.0297	.0539
330.000			-.0231	.0729

ALPHA (3) = -.309 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.1880	.1112
30.000		-.1053	.2104	.0989
60.000		-.0442	.2001	.1292
90.000	.0360	-.0131	.1840	.2949
120.000		-.0129	.3398	.5419

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT45)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.309 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
135.000		-.0298	.3594	.7797
150.000		.0525	.4889	.6453
165.000		.0096	.5357	.4772
195.000			.3381	.1632
210.000			.0525	.0294
225.000			.0961	.1719
240.000			.0678	.1521
270.000	-.1384	-.1370	-.0600	.3671
300.000			.0813	.1142
330.000			.1719	.1038

ALPHA (3) = -.360 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.1507	.0897
30.000		-.1864	.1341	.1024
60.000		-.1178	.0753	.1103
90.000	-.0533	-.0918	.0145	.4086
120.000		-.0791	.1549	.3427
135.000		-.0437	.0926	.4780
150.000		-.0087	.2904	.3950
165.000		-.0244	.2724	.2090
195.000			.2407	.1618
210.000			.2413	.2004
225.000			.1596	.3833
240.000			.1353	.2717
270.000	-.0724	-.1037	.0098	.4363
300.000			.0642	.1102
330.000			.1188	.0948

ALPHA (3) = -.405 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			.1793	.1099
30.000		-.2629	.1842	.1041
60.000		-.1926	.0933	.1054
90.000	-.1187	-.1345	-.0873	.4278
120.000		-.0745	.0706	.1409
135.000		-.0584	.0625	.2285
150.000		-.0447	.1926	.2248
165.000		-.0939	.1090	.0609
195.000			.3658	.3740
210.000			.3970	.4725
225.000			.3619	.6742
240.000			.2810	.4722
270.000	.0139	-.0289	.1780	.3292
300.000			.2045	.1256
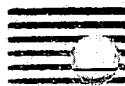
ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT45)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.405 BETA (3) = 4.025

X/L PHI	.634	.742	.851	.986
330.000			.2023	.0931

ALPHA (4) = 3.873 BETA (1) = .000

X/L PHI	.634	.742	.851	.986
.000			.2543	.1025
30.000		-.1814	.2321	.0892
60.000		-.1078	.2109	.1242
90.000	-.0394	-.0834	.0639	.2881
120.000		-.0134	.2791	.3770
135.000		.0299	.2738	.4673
150.000		.0530	.3612	.4069
165.000		.0513	.3346	.2231
195.000			.3180	.2171
210.000			.3192	.2545
225.000			.2697	.3609
240.000			.2520	.2940
270.000	-.0651	-.0858	.0399	.3262
300.000			.2051	.1142
330.000			.2289	.0798

ALPHA (5) = 7.989 BETA (1) = .000

X/L PHI	.634	.742	.851	.986
.000			.2587	.1040
30.000		-.0923	.2183	.0775
60.000		-.0274	.1852	.0715
90.000	.0088	.0094	.0199	.1540
120.000		.1193	.3334	.3496
135.000		.1416	.3268	.4615
150.000		.1585	.4015	.3981
165.000		.1681	.3733	.2340
195.000			.3520	.2279
210.000			.3498	.2607
225.000			.3184	.3555
240.000			.3047	.2800
270.000	.0016	-.0075	.0360	.1912
300.000			.1940	.0741
330.000			.2201	.0709

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT46)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -8.175 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                                PHI
                                                .000   -.0281   -.0211
                                               30.000   -.1444   -.0721   .0136
                                               60.000   -.0747   -.1100   .1274
                                               90.000   -.0009   -.0737   -.0366   .4107
                                              120.000   -.1056   -.0100   .2841
                                              135.000   -.1007   -.1706   .3996
                                              150.000   -.1084   .1666   .3750
                                              165.000   -.1414   .1678   .2041
                                              195.000   .1419   .1525
                                              210.000   .1427   .1437
                                              225.000   -.0043   .2798
                                              240.000   -.0453   .2297
                                              270.000   -.0720   -.0924   -.0432   .3859
                                              300.000   -.0912   .1283
                                              330.000   -.0689   .0002

ALPHA (2) = -4.002 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                                PHI
                                                .000   -.0033   .0069
                                               30.000   -.1412   -.0445   .0128
                                               60.000   -.0742   -.0658   .0473
                                               90.000   -.0171   -.0570   -.0118   .4593
                                              120.000   -.0825   .0513   .3501
                                              135.000   -.0901   -.1064   .4971
                                              150.000   -.1097   .2350   .4187
                                              165.000   -.1286   .2273   .2411
                                              195.000   .1883   .1922
                                              210.000   .1858   .1980
                                              225.000   .0906   .3416
                                              240.000   .0603   .2751
                                              270.000   -.0759   -.0839   -.0077   .4595
                                              300.000   -.0577   .0498
                                              330.000   -.0426   .0045

ALPHA (3) = -.348 BETA (1) = -4.000   X/L   .634   .742   .851   .986
                                                PHI
                                                .000   -.0012   .0524
                                               30.000   -.0702   -.0252   .0390
                                               60.000   -.0101   .0283   .0874
                                               90.000   .0130   .0049   .0900   .2857
                                              120.000   .0209   .2297   .6001
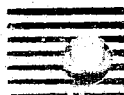
ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT46)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CF

ALPHA (3) = -.348 BETA (1) = -4.000

X/L PHI	.634	.742	.851	.986
135.000		-.0030	.1953	.7476
150.000		-.0101	.4301	.6685
165.000		.0493	.4786	.5425
195.000			.2884	.2361
210.000			.0829	.0693
225.000			.1073	.1928
240.000			.0835	.2057
270.000	-.0925	-.1113	-.1138	.2593
300.000			-.1141	.0582
330.000			-.0369	.0509

ALPHA (3) = -.369 BETA (2) = .016

X/L PHI	.634	.742	.851	.986
.000			.0019	.0336
30.000		-.1436	-.0323	.0481
60.000		-.0801	-.0473	.0644
90.000	-.0211	-.0482	-.0098	.3478
120.000		-.0415	.1526	.4221
135.000		-.0551	-.0448	.5436
150.000		-.0834	.3020	.4588
165.000		-.0861	.2895	.2749
195.000			.2524	.2458
210.000			.2524	.2483
225.000			.1763	.3821
240.000			.1502	.3129
270.000	-.0565	-.0735	-.0249	.3787
300.000			-.0485	.0704
330.000			-.0325	.0421

ALPHA (3) = -.360 BETA (3) = 4.028

X/L PHI	.634	.742	.851	.986
.000			.0011	.0527
30.000		-.2050	-.0362	.0556
60.000		-.1389	-.1241	.0548
90.000	-.0572	-.1004	-.1097	.2926
120.000		-.0972	.0978	.1991
135.000		-.1107	.1054	.2641
150.000		-.1506	.2169	.2679
165.000		-.1906	.1464	.1467
195.000			.2811	.4024
210.000			.3194	.4564
225.000			.2756	.5681
240.000			.1639	.4973
270.000	-.0061	-.0191	.0469	.3116
300.000			.0227	.0935

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT46)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = -.360 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
330.000			-.0256	.0334

ALPHA (4) = 3.900 BETA (1) = .006

X/L	.634	.742	.851	.986
PHI				
.000			.0222	.1530
30.000		-.1500	-.0117	.1392
60.000		-.0774	-.0253	.0564
90.000	.0039	-.0649	-.0836	.1940
120.000		-.0130	.2440	.4359
135.000		-.0071	.1483	.5348
150.000		-.0275	.3817	.4894
165.000		.0095	.3649	.3107
195.000			.3304	.3060
210.000			.3281	.3091
225.000			.2540	.4044
240.000			.2249	.3511
270.000	-.0172	-.0830	-.1076	.1524
300.000			-.0255	.0529
330.000			-.0114	.1399

ALPHA (5) = 7.653 BETA (1) = .006

X/L	.634	.742	.851	.986
PHI				
.000			.2259	.1909
30.000		-.1367	.1964	.1496
60.000		-.0753	.0780	.1144
90.000	.0460	-.0189	-.1215	.1208
120.000		.0502	.2952	.3821
135.000		.0736	.2862	.4966
150.000		.0883	.4060	.4603
165.000		.0716	.3786	.2988
195.000			.3646	.3127
210.000			.3479	.3315
225.000			.2897	.3642
240.000			.2699	.3186
270.000	.0316	-.0180	-.1258	.1213
300.000			.0958	.1245
330.000			.2022	.1402

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT47)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT			ELV-IB =	6.000	ELV-OB = .000
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT			RUDDER =	.000	MACH = 1.400
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT			GIMBAL =	1.000	
SCALE = .0200						

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.050 BETA (1) = -.003

X/L	.634	.742	.851	.986
PHI				
.000			-.0060	.0126
30.000		-.1477	-.0482	.0074
60.000		-.0792	-.0658	.0421
90.000	-.0218	-.0600	-.0169	.4534
120.000		-.0907	.0475	.3474
135.000		-.0954	-.1069	.4956
150.000		-.1070	.2290	.4183
165.000		-.1334	.2257	.2433
195.000			.1840	.1960
210.000			.1853	.1949
225.000			.0883	.3331
240.000			.0858	.2750
270.000	-.0813	-.0869	-.0146	.4560
300.000			-.0588	.0464
330.000			-.0459	.0003

ALPHA (2) = -.150 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.0000	.0510
30.000		-.0723	-.0251	.0371
60.000		-.0082	.0266	.0854
90.000	.0135	.0007	.0884	.2724
120.000			.0206	.2297	.5984
135.000		-.0017	.1915	.7517
150.000		-.0172	.4296	.6745
165.000		.0381	.4810	.5303
195.000			.2908	.2405
210.000			.0852	.0692
225.000			.1103	.1915
240.000			.0856	.2048
270.000	-.0936	-.1131	-.1190	.2411
300.000			-.1139	.0557
330.000			-.0366	.0516

ALPHA (2) = -.129 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
.000			.0027	.0346
30.000		-.1443	-.0321	.0490
60.000		-.0784	-.0459	.0650
90.000	-.0179	-.0509	-.0085	.3319
120.000		-.0401	.1578	.4240

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT47)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.129 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
135.000		-.0504	-.0226	.5415
150.000		-.0825	.3076	.4682
165.000		-.1047	.3000	.2923
195.000			.2557	.2528
210.000			.2529	.2497
225.000			.1801	.3748
240.000			.1505	.3162
270.000	-.0567	-.0761	-.0288	.3582
300.000			-.0515	.0693
330.000			-.0288	.0423

ALPHA (2) = -.234 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			-.0039	.0540
30.000		-.2109	-.0402	.0559
60.000		-.1419	-.1235	.0505
90.000	-.0600	-.1058	-.1154	.2735
120.000		-.1002	.0990	.2007
135.000		-.1087	.1044	.2640
150.000		-.1395	.2147	.2643
165.000		-.1778	.1455	.1475
195.000			.2888	.4057
210.000			.3234	.4592
225.000			.2725	.5998
240.000			.1553	.5086
270.000	-.0070	-.0230	.0462	.2944
300.000			.0196	.0882
330.000			-.0263	.0318

ALPHA (3) = 3.867 BETA (1) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0219	.1478
30.000		-.1518	-.0135	.1339
60.000		-.0804	-.0237	.0485
90.000	.0019	-.0694	-.0790	.1879
120.000		-.0149	.2469	.4342
135.000		-.0095	.1690	.5378
150.000		-.0474	.3810	.5015
165.000		-.0056	.3648	.3276
195.000			.3272	.2943
210.000			.3278	.2996
225.000			.2487	.3969
240.000			.2461	.3432
270.000	-.0216	-.0889	-.1122	.1479
300.000			-.0265	.0405
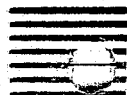
ARC11-014IA19 OTS   SRB-OFF HPS-OFF EXT TANK   (REUT47)

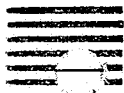SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.867 BETA (1) =   .009   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   -.0131 .1327

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT48)   (22 OCT 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF. = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   .000
RUDDER =   .000   MACH   =   1.400
GIMBAL =   1.000

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.143 BETA (1) = -.003

X/L PHI	.634	.742	.851	.986
.000			-.0071	.0069
30.000		-.1465	-.0483	.0116
60.000		-.0780	-.0680	.0418
90.000	-.0207	-.0611	-.0128	.4551
120.000		-.0894	.0497	.3451
135.000		-.0962	-.1048	.4966
150.000		-.1094	.2296	.4156
165.000		-.1337	.2257	.2462
195.000			.1860	.1935
210.000			.1818	.1937
225.000			.0897	.3330
240.000			.0587	.2743
270.000	-.0827	-.0887	-.0125	.4584
300.000			-.0608	.0468
330.000			-.0457	.0004

ALPHA (2) = -.243 BETA (1) = -4.003

X/L PHI	.634	.742	.851	.986
.000			-.0020	.0494
30.000		-.0728	-.0267	.0390
60.000		-.0088	.0252	.0874
90.000	.0131	.0023	.0893	.2802
120.000		.0194	.2285	.5996
135.000		-.0039	.1887	.7490
150.000		-.0165	.4264	.6712
165.000		.0363	.4769	.5341
195.000			.2848	.2357
210.000			.0843	.0699
225.000			.1075	.1877
240.000			.0819	.2030
270.000	-.0948	-.1132	-.1163	.2482
300.000			-.1174	.0563
330.000			-.0391	.0491

ALPHA (2) = -.324 BETA (2) =   .009

X/L PHI	.634	.742	.851	.986
.000			-.0017	.0307
30.000		-.1485	-.0371	.0470
60.000		-.0810	-.0520	.0614
90.000	-.0223	-.0529	-.0102	.3443
120.000		-.0439	.1549	.4188
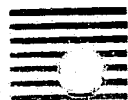
DATE 01 MAY 75   TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT48)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.324   BETA (2) = .009

X/L PHI	.634	.742	.851	.986
135.000		-.0566	-.0324	.5407
150.000		-.0852	.2994	.4623
165.000		-.1084	.2941	.2845
195.000			.2494	.2482
210.000			.2451	.2449
225.000			.1762	.3744
240.000			.1511	.3095
270.000	-.0608	-.0772	-.0287	.3718
300.000			-.0539	.0685
330.000			-.0341	.0381

ALPHA (2) = -.435   BETA (3) = 4.025

X/L PHI	.634	.742	.851	.986
.000			-.0006	.0543
30.000		-.2093	-.0371	.0548
60.000		-.1400	-.1228	.0525
90.000	-.0575	-.1020	-.1093	.2841
120.000		-.0980	.1000	.1997
135.000		-.1085	.1079	.2844
150.000		-.1453	.2181	.2661
165.000		-.1792	.1463	.1499
195.000			.2862	.4067
210.000			.3267	.4592
225.000			.2746	.5838
240.000			.1617	.5028
270.000	-.0069	-.0208	.0473	.3087
300.000			.0203	.0913
330.000			-.0249	.0343

ALPHA (3) = 4.032   BETA (1) = -.006

X/L PHI	.634	.742	.851	.986
.000			.0245	.1531
30.000		-.1528	-.0106	.1465
60.000		-.0815	-.0252	.0582
90.000	.0034	-.0708	-.0863	.1973
120.000		-.0146	.2469	.4350
135.000		-.0094	.1641	.5356
150.000		-.0421	.3846	.4850
165.000		.0027	.3645	.3153
195.000			.3291	.3065
210.000			.3288	.3093
225.000			.2549	.4007
240.000			.2264	.3473
270.000	-.0188	-.0879	-.1112	.1514
300.000			-.0247	.0515

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT48)

SECTION (1) EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 4.032 BETA (1) = -.096   X/L   .634   .742   .851   .986
                                                FHI
                                                330.000   -.0126   .1393

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT49)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB = 8.000   ELV-OB = 4.000
LREF = 1290.3000 IN.   YMRP = .0000 IN. YT   RUDDER = .000   MACH = .900
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL = 1.000
SCALE = .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.041 BETA (1) = .000

X/L	.634	.742	.851	.986
PHI				
.000			.0029	-.2815
30.000		-.1151	-.0121	-.2851
60.000		-.0789	-.0141	-.2036
90.000	-.0461	-.0166	.0085	.1934
120.000		.0132	-.0240	.0176
135.000		.0265	-.0438	.2507
150.000		.0360	.0974	.1076
165.000		.0352	.0661	-.0988
195.000			.0698	-.1375
210.000			.0730	-.0359
225.000			-.0075	.2578
240.000			-.0093	.0029
270.000	-.0481	-.0322	-.0052	.1896
300.000			-.0075	-.1947
330.000			-.0125	-.3082

ALPHA (2) = -.198 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.0059	-.2663
30.000		-.0907	.0019	-.2694
60.000		-.0466	.0233	-.1951
90.000	-.0141	.0384	.0502	.1109
120.000		.0857	.1387	.1640
135.000		.1007	.1597	.4977
150.000		.1140	.3050	.3657
165.000		.0738	.3563	.1577
195.000			.2144	-.0377
210.000			.0421	-.1317
225.000			-.0038	.0756
240.000			-.0012	-.0626
270.000	-.0882	-.0907	-.0731	.2698
300.000			-.0214	-.1945
330.000			-.0058	-.2915

ALPHA (2) = -.162 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
.000			.0235	-.2525
30.000		-.1257	.0065	-.2511
60.000		-.0900	.0029	-.1909
90.000	-.0524	-.0208	-.0041	.2104
120.000		.0309	.0341	.0990

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT49)

SECTION (1) EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.162 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
135.000		.0481	-.0029	.3615
150.000		.0620	.1430	.1434
165.000		.0600	.1102	-.0762
195.000			.0992	-.1077
210.000			.1014	.0229
225.000			.0361	.3463
240.000			.0361	.0740
270.000	-.0592	-.0310	-.0105	.2151
300.000			.0075	-.1726
330.000			.0045	-.2684

ALPHA (2) = -.285 BETA (3) = 4.022

X/L	.634	.742	.851	.986
PHI				
.000			.0076	-.2594
30.000		-.1267	-.0037	-.2646
60.000		-.1059	-.0270	-.1961
90.000	-.0810	-.0747	-.0859	.2689
120.000		.0074	-.0164	-.0632
135.000		.0118	-.0278	.0919
150.000		.0082	.1172	.0987
165.000		.0086	.0341	-.0778
195.000			.2319	.1143
210.000			.2282	.1539
225.000			.1836	.4038
240.000			.1826	.1049
270.000	-.0373	.0259	.0715	.1107
300.000			.0406	-.1731
330.000			.0090	-.2751

ALPHA (3) = 3.828 BETA (1) = -.003

X/L	.634	.742	.851	.986
PHI				
.000			.0138	-.2492
30.000		-.1546	-.0045	-.2609
60.000		-.1135	-.0180	-.1885
90.000	-.0537	-.0515	-.0945	.1018
120.000		.0435	.0614	.1163
135.000		.0661	.0196	.4118
150.000		.0836	.1674	.1515
165.000		.0848	.1281	-.0695
195.000			.1274	-.0954
210.000			.1282	.0395
225.000			.0754	.3874
240.000			.0766	.0758
270.000	-.0579	-.0713	-.0864	.1033
300.000			-.0097	-.1753

DATE 01 MAY 75   TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT49)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.828 BETA (1) = -.003   X/L   .634   .742   .851   .986
                                            PHI
                                            330.000   -.0037 -.2749

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT50)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.2256	.0011
30.000		.0223	.2147	.0338
60.000		.0437	.2104	.1464
90.000	-.1053	.0584	.2064	.3873
120.000		.0820	.1608	.1087
135.000		.0972	.1630	.3212
150.000		.0980	.2443	.2593
165.000		.0944	.2112	.0540
195.000			.2082	.0328
210.000			.2034	.1296
225.000			.1730	.3187
240.000			.1732	.0848
270.000	-.0948	.0577	.2022	.3195
300.000			.2113	.1498
330.000			.2072	.0170

ALPHA (2) = -.162 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			.2100	.0146
30.000		-.0306	.2153	.0212
60.000		.0446	.2384	.0848
90.000	.0545	.1607	.2896	.3073
120.000		.2121	.3352	.3319
135.000		.2345	.3582	.6331
150.000		.2469	.4704	.5452
165.000		.1918	.5188	.3718
195.000			.3840	.1142
210.000			.1435	.0370
225.000			.1675	.2093
240.000			.1649	.0972
270.000	-.0610	.0844	.1752	.3165
300.000			.1733	.0316
330.000			.1934	.0071

ALPHA (2) = -.141 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			.2164	.0260
30.000		-.0410	.2085	.0430
60.000		.0097	.2083	.0580
90.000	-.0351	.0913	.2412	.2494
120.000		.1403	.2300	.2306

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT50)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.141 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
135.000		.1499	.2273	.4036
150.000		.1503	.3143	.3042
165.000		.1509	.2840	.1025
195.000			.2636	.0949
210.000			.2636	.1826
225.000			.2231	.3992
240.000			.2224	.1804
270.000	-.0259	.0930	.2176	.2682
300.000			.2062	.1044
330.000			.1987	.0301

ALPHA (2) = -.234 BETA (3) = 4.025

X/L	.634	.742	.851	.986
PHI				
.000			.2085	.0238
30.000		.0535	.2003	.0260
60.000		.0768	.1776	.0351
90.000	-.0861	.1019	.1855	.3461
120.000		.1327	.1672	.1152
135.000		.1273	.1585	.2268
150.000		.1173	.2602	.2527
165.000		.0744	.1541	.0037
195.000			.3964	.2873
210.000			.3976	.3706
225.000			.3711	.5608
240.000			.3719	.2832
270.000	.0443	.1379	.2871	.3046
300.000			.2477	.1178
330.000			.2167	.0144

ALPHA (3) = 3.879 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.1809	.0122
30.000		-.0407	.1711	.0074
60.000		.0234	.1686	.0179
90.000	.0787	.1324	.1655	.2429
120.000		.1924	.2673	.2765
135.000		.2132	.2552	.4347
150.000		.2188	.3408	.3012
165.000		.2222	.3144	.1126
195.000			.3044	.1251
210.000			.3123	.1913
225.000			.2749	.3510
240.000			.2761	.2184
270.000	.0807	.1227	.1544	.2390
300.000			.1701	.0327

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT50)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.879 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                              PHI
                                              330.000   .1704 -.0007

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT51)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP = ·   :.0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   ·GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.008   BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.0545	.0742
30.000		-.1920	.0045	.0788
60.000		-.1184	-.0117	.0442
90.000	-.0558	-.0878	.0357	.2662
120.000		-.0615	.0237	.3000
135.000		-.0508	-.0953	.4434
150.000		-.0137	.2213	.3506
165.000		-.0289	.2097	.1553
195.000			.1956	.1212
210.000			.1937	.1517
225.000			.0460	.3457
240.000			.0462	.2347
270.000		-.0713	-.0943	.0341	.2753
300.000			-.0137	.0628
330.000			-.0009	.0734

ALPHA (2) = -.138   BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.1863	.1068
30.000		-.1048	.2047	.1026
60.000		-.0408	.1999	.1239
90.000	.0365	-.0126	.1806	.2852
120.000		-.0080	.3396	.5361
135.000		-.0317	.3803	.7755
150.000		.0515	.4909	.6422
165.000		.0074	.5365	.4739
195.000			.3457	.1653
210.000			.0926	.0294
225.000			.0973	.1695
240.000			.0984	.1482
270.000		-.1386	-.1312	-.0550	.3629
300.000			.0885	.1061
330.000			.1795	.1060

ALPHA (2) = -.225   BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.1668	.0885
30.000		-.1866	.1605	.1017
60.000		-.1194	.0912	.1042
90.000	-.0514	-.0911	.0308	.3883
120.000		-.0797	.1618	.3355

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT51)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.225 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
135.000		-.0442	.1171	.4681
150.000		-.0082	.2967	.3973
165.000		-.0186	.2777	.2089
195.000			.2467	.1704
210.000			.2463	.2057
225.000			.1644	.3816
240.000			.1641	.2767
270.000	-.0725	-.1058	.0091	.4281
300.000			.0702	.1104
330.000			.1353	.0949

ALPHA (2) = -.252 BETA (3) = 4.022

X/L	.634	.742	.851	.986
PHI				
.000			.1816	.1134
30.000		-.2597	.1756	.1060
60.000		-.1876	.0825	.1041
90.000	-.1137	-.1286	-.0798	.4245
120.000		-.0724	.0786	.1442
135.000		-.0548	.0680	.2318
150.000		-.0427	.2000	.2328
165.000		-.0979	.1169	.0629
195.000			.3770	.3801
210.000			.3778	.4770
225.000			.3699	.6774
240.000			.3341	.4749
270.000	.0148	-.0291	.1895	.3228
300.000			.1951	.1278
330.000			.2044	.0956

ALPHA (3) = 3.864 BETA (1) = .000

X/L	.634	.742	.851	.986
PHI				
.000			.2514	.0994
30.000		-.1835	.2301	.0865
60.000		-.1115	.2035	.1189
90.000	-.0379	-.0881	.0514	.2846
120.000		-.0216	.2743	.3761
135.000		.0280	.2674	.4636
150.000		.0522	.3619	.4049
165.000		.0562	.3351	.2250
195.000			.3210	.2160
210.000			.3214	.2528
225.000			.2671	.3582
240.000			.2625	.2941
270.000	-.0662	-.0896	.0421	.3148
300.000			.2012	.1111

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT51)

. SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.864 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                            PHI
                                            330.000   .2257   .0764

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT52)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-CB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -3.990 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			-.0021	.0104
30.000		-.1432	-.0429	.0128
60.000		-.0749	-.0635	.0443
90.000	-.0186	-.0578	-.0120	.4595
120.000		-.0874	.0515	.3502
135.000		-.0937	-.1070	.5000
150.000		-.1061	.2330	.4211
165.000		-.1323	.2278	.2490
195.000			.1887	.1987
210.000			.1907	.1976
225.000			.0905	.3361
240.000			.0598	.2775
270.000	-.0779	-.0870	-.0126	.4615
300.000			-.0564	.0478
330.000			-.0426	.0026

ALPHA (2) = -.195 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			-.0024	.0479
30.000		-.0750	-.0257	.0336
60.000		-.0113	.0267	.0823
90.000	.0118	-.0017	.0901	.2761
120.000		.0175	.2308	.5980
135.000		-.0066	.1910	.7481
150.000		-.0204	.4270	.6747
165.000		.0367	.4808	.5321
195.000			.2898	.2357
210.000			.1052	.0676
225.000			.1096	.1884
240.000			.1092	.2002
270.000	-.0948	-.1162	-.1192	.2362
300.000			-.1146	.0528
330.000			-.0393	.0482

ALPHA (2) = -.198 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
.000			.0026	.0334
30.000		-.1483	-.0311	.0486
60.000		-.0805	-.0483	.0528
90.000	-.0214	-.0530	-.0105	.3319
120.000		-.0434	.1557	.4219

ARC11-014IA19 OTS   SRB-OFF MPS-OFF EXT TANK   (REUT52)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.198 BETA (2) =   .009

X/L	.634	.742	.851	.986
PHI				
135.000		-.0525	-.0289	.5395
150.000		-.0828	.3049	.4638
165.000		-.1081	.2958	.2854
195.000			.2531	.2495
210.000			.2533	.2495
225.000			.1806	.3761
240.000			.1792	.3120
270.000	-.0582	-.0788	-.0298	.3621
300.000			-.0495	.0670
330.000			-.0300	.0398

ALPHA (2) = -.186 BETA (3) = 4.022

X/L	.634	.742	.851	.986
PHI				
.000			.0013	.0533
30.000		-.2099	-.0358	.0539
60.000		-.1404	-.1225	.0515
90.000	-.0604	-.1055	-.1152	.2761
120.000		-.0980	.1021	.2004
135.000		-.1055	.1072	.2609
150.000		-.1377	.2148	.2647
165.000		-.1772	.1475	.1475
195.000			.2933	.4067
210.000			.3280	.4643
225.000			.2743	.5973
240.000			.1550	.5107
270.000	-.0064	-.0216	.0497	.2907
300.000			.0224	.0869
330.000			-.0249	.0295

ALPHA (3) = 3.960 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			.0248	.1542
30.000		-.1509	-.0101	.1383
60.000		-.0788	-.0184	.0551
90.000	.0041	-.0682	-.0823	.1947
120.000		-.0156	.2433	.4333
135.000		-.0121	.1545	.5343
150.000		-.0421	.3798	.4854
165.000		.0080	.3613	.3117
195.000			.3305	.3018
210.000			.3304	.3073
225.000			.2525	.4018
240.000			.2200	.3478
270.000	-.0176	-.0859	-.1080	.1518
300.000			-.0190	.0484

ARC11-014IA19 OTS   -SRB-OFF MPS-OFF EXT TANK   (REUT52)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.960 BETA (1) =   .000   X/L   .634   .742   .851   .986
                                                PHI
                                                330.000   -.0110   .1373
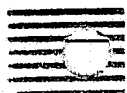
ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT53)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.179 BETA (1) = -.003

X/L	.634	.742	.851	.986
PHI				
.000			-.0086	-.2899
30.000		-.1178	-.0211	-.2948
60.000		-.0822	-.0256	-.2112
90.000	-.0469	-.0223	-.0009	.1951
120.000		.0026	-.0376	.0147
135.000		.0197	-.0561	.2460
150.000		.0293	.0854	.1011
165.000		.0210	.0542	-.1062
195.000			.0584	-.1526
210.000			.0598	-.0472
225.000			-.0193	.2424
240.000			-.0648	-.0150
270.000	-.0479	-.0381	-.0136	.1804
300.000			-.0138	-.2026
330.000			-.0246	-.3172

ALPHA (2) = -.339 BETA (1) = -3.997

X/L	.634	.742	.851	.986
PHI				
.000			-.0002	-.2730
30.000		-.0962	-.0030	-.2740
60.000		-.0500	.0192	-.2016
90.000	-.0175	.0326	.0471	.1171
120.000		.0814	.1353	.1618
135.000		.0973	.1542	.4928
150.000		.1132	.3012	.3615
165.000		.0649	.3529	.1526
195.000			.2094	-.0470
210.000			-.0415	-.1338
225.000			-.0169	.0703
240.000			-.0511	-.0710
270.000	-.0923	-.0997	-.0753	.2714
300.000			-.0242	-.1977
330.000			-.0161	-.2953

ALPHA (2) = -.380 BETA (2) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.0232	-.2587
30.000		-.1260	.0065	-.2583
60.000		-.0881	.0025	-.1972
90.000	-.0546	-.0199	-.0022	.2139
120.000		.0305	.0345	.0920

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT53)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.360 BETA (2) = .01?

X/L	.634	.742	.851	.986
PHI				
135.000		.0474	-.0046	.3570
150.000		.0611	.1419	.1443
165.000		.0573	.1112	-.0732
195.000			.0993	-.1147
210.000			.1313	.0166
225.000			.0372	.3415
240.000			.0013	.0668
270.000	-.0612	-.0354	-.0096	.2161
300.000			.0113	-.1795
330.000			.0069	-.2750

ALPHA (2) = -.411 BETA (3) = 4.022

X/L	.634	.742	.851	.986
PHI				
.000			.0090	-.2627
30.000		-.1337	-.0052	-.2669
60.000		-.1094	-.0271	-.1998
90.000	-.0837	-.0742	-.0874	.2749
120.000		.0061	-.0186	-.0677
135.000		.0074	-.0370	.0857
150.000		.0055	.1125	.0923
165.000		-.0165	.0319	-.0786
195.000			.2268	.1092
210.000			.2771	.1532
225.000			.1835	.4007
240.000			.1078	.1032
270.000	-.0386	.0242	.0697	.1163
300.000			.0381	-.1745
330.000			.0102	-.2781

ALPHA (3) = 3.936 BETA (1) = -.006

X/L	.634	.742	.851	.986
PHI				
.000			.0152	-.2512
30.000		-.1557	-.0036	-.2593
60.000		-.1150	-.0183	-.1967
90.000	-.0568	-.0485	-.0922	.0908
120.000		.0435	.0634	.1127
135.000		.0678	.0233	.4094
150.000		.0842	.1702	.1500
165.000		.0840	.1330	-.0683
195.000			.1274	-.0968
210.000			.1723	.0431
225.000			.0767	.3895
240.000			.0397	.0769
270.000	-.0606	-.0732	-.0917	.0971
300.000			-.0082	-.1758

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT53)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.936 BETA (1) = -.006   X/L   .634   .742   .851   .986
                                                PHI
                                                330.000   -.0007 -.2763

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT54)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF	=	2690.0000 SQ.FT.	XMRP	=	976.0000 IN. XT
LREF	=	1290.3000 IN.	YMRP	=	.0000 IN. YT
BREF	=	1290.3000 IN.	ZMRP	=	400.0000 IN. ZT
SCALE	=	.0200			

ELV-IB =	8.000	ELV-OB =	4.000
RUDDER =	.000	MACH =	1.100
GIMBAL =	1.000		

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.149 BETA (1) = .000

X/L	.634	.742	.851	.986
PHI				
.000			.2239	-.0024
30.000		.0371	.2157	.0318
60.000		.0643	.2107	.1543
90.000	-.0956	.0709	.2042	.4030
120.000		.0898	.1681	.1072
135.000		.1038	.1655	.3581
150.000		.0946	.2461	.2540
165.000		.0898	.2144	.0551
195.000			.2046	.0356
210.000			.2139	.1239
225.000			.1740	.3160
240.000			.1443	.0831
270.000	-.0652	.0692	.1964	.3484
300.000			.2137	.1575
330.000			.2099	.0159

ALPHA (2) = -.315 BETA (1) = -4.003

X/L	.634	.742	.851	.986
PHI				
.000			.2138	.0183
30.000		-.0310	.2187	.0235
60.000		.0477	.2413	.0800
90.000	.0530	.1631	.2939	.3011
120.000		.2097	.3384	.3371
135.000		.2320	.3617	.6357
150.000		.2411	.4767	.5461
165.000		.1900	.5235	.3739
195.000			.3822	.1203
210.000			.1050	.0444
225.000			.1679	.2170
240.000			.1466	.0994
270.000	-.0624	.0864	.1814	.3061
300.000			.1787	.0416
330.000			.1979	.0120

ALPHA (2) = -.327 BETA (2) = .006

X/L	.634	.742	.851	.986
PHI				
.000			.2178	.0224
30.000		-.0482	.2094	.0379
60.000		.0043	.2098	.0683
90.000	-.0279	.0987	.2456	.2516
120.000		.1445	.2306	.2190

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT54)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.327 BETA (2) =   .006   X/L   .634   .742   .851   .986
                                            PHI
                                            135.000   .1464   .2253   .3956
                                            150.000   .1519   .3113   .3046
                                            165.000   .1473   .2787   .1033
                                            195.000   .2568   .0904
                                            210.000   .2646   .1754
                                            225.000   .2194   .3959
                                            240.000   .2007   .1713
                                            270.000 -.0211 .0897   .2225   .2760
                                            300.000   .2056   .1126
                                            330.000   .2010   .0281

ALPHA (2) = -.288 BETA (3) = 4.016   X/L   .634   .742   .851   .986
                                            PHI
                                            .000   .2116   .0269
                                            30.000   .0514   .2010   .0309
                                            60.000   .0755   .1764   .0410
                                            90.000   -.0896 .0991   .1911   .3283
                                            120.000   .1308   .1663   .1135
                                            135.000   .1241   .1591   .2259
                                            150.000   .1122   .2599   .2545
                                            165.000   .0713   .1597   .0143
                                            195.000   .3946   .2903
                                            210.000   .4318   .3716
                                            225.000   .3707   .5636
                                            240.000   .3099   .2818
                                            270.000   .0406 .1306   .2933   .3227
                                            300.000   .2502   .1212
                                            330.000   .2187   .0189

ALPHA (3) = 3.915 BETA (1) = -.003   X/L   .634   .742   .851   .986
                                            PHI
                                            .000   .1847   .0169
                                            30.000   -.0373 .1771   .0130
                                            60.000   .0283   .1710   .0231
                                            90.000   .0795   .1272   .1688   .2420
                                            120.000   .1938   .2738   .2838
                                            135.000   .2144   .2606   .4446
                                            150.000   .2227   .3479   .3093
                                            165.000   .2178   .3200   .1196
                                            195.000   .3088   .1294
                                            210.000   .3205   .1969
                                            225.000   .2807   .3590
                                            240.000   .2617   .2217
                                            270.000   .0788 .1227   .1576   .2510
                                            300.000   .1760   .0400

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT54)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.915 BETA (1) = -.003   X/L   .634   .742   .851   .986
                                                PHI
                                                330.000   .1746 .0050

ARC11-014IA19 OTS   SRB-NOM-MPS-OFF EXT TANK   (REUT55)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000

PHI	X/L	.634	.742	.851	.986
.000				.0338	.0680
30.000			-.1943	-.0157	.0712
60.000			-.1214	-.0324	.0475
90.000		-.0590	-.0912	.0210	.2722
120.000			-.0657	.0145	.2939
135.000			-.0569	-.1009	.4428
150.000			-.0231	.2101	.3392
165.000			-.0374	.1999	.1543
195.000				.1830	.1098
210.000				.1801	.1427
225.000				.0402	.3357
240.000				.0170	.2226
270.000		-.0700	-.0958	.0226	.2677
300.000				-.0295	.0555
330.000				-.0182	.0688

ALPHA (2) = -.369 BETA (1) = -4.000

PHI	X/L	.634	.742	.851	.986
.000				.1932	.1077
30.000			-.1084	.2045	.1048
60.000			-.0445	.2109	.1271
90.000		.0347	-.0127	.1917	.2994
120.000			-.0099	.3424	.5355
135.000			-.0334	.3621	.7763
150.000			.0503	.4883	.6425
165.000			.0020	.5348	.4731
195.000				.3434	.1625
210.000				.0497	.0275
225.000				.0945	.1678
240.000				.0718	.1440
270.000		-.1381	-.1333	-.0493	.3808
300.000				.0879	.1088
330.000				.1823	.1052

ALPHA (2) = -.309 BETA (2) =   .012

PHI	X/L	.634	.742	.851	.986
.000				.1613	.0859
30.000			-.1887	.1550	.0995
60.000			-.1198	.0917	.1052
90.000		-.0544	-.0912	.0359	.4031
120.000			-.0815	.1555	.3344

ARC11-014IA19 OTS   SRB-NOM HFS-OFF EXT TANK   (REUT55)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.309 BETA (2) =   .012

X/L	.634	.742	.851	.986
PHI				
135.000		-.0493	.1047	.4667
150.000		-.0076	.2917	.3956
165.000		-.0188	.2734	.2107
195.000			.2436	.1656
210.000			.2419	.1991
225.000			.1583	.3770
240.000			.1339	.2705
270.000	-.0753	-.1076	.0113	.4298
300.000			.0790	.1092
330.000			.1379	.0922

ALPHA (2) = -.300 BETA (3) = 4.022

X/L	.634	.742	.851	.986
PHI				
.000			.1825	.1038
30.000		-.2642	.1732	.0993
60.000		-.1930	.0829	.1011
90.000	-.1209	-.1312	-.0778	.4368
120.000		-.0751	.0687	.1367
135.000		-.0557	.0589	.2271
150.000		-.0417	.1924	.2276
165.000		-.0685	.1067	.0480
195.000			.3735	.3715
210.000			.4052	.4648
225.000			.3656	.6628
240.000			.2900	.4639
270.000	.0148	-.0290	.1982	.3203
300.000			.2077	.1194
330.000			.1932	.0890

ALPHA (3) = 3.966 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.2499	.0960
30.000		-.1860	.2277	.0840
60.000		-.1102	.2063	.1222
90.000	-.0386	-.0874	.0574	.2874
120.000		-.0191	.2794	.3770
135.000		.0265	.2768	.4679
150.000		.0517	.3629	.4039
165.000		.0601	.3362	.2234
195.000			.3204	.2168
210.000			.3205	.2538
225.000			.2754	.3613
240.000			.2579	.2929
270.000	-.0657	-.0909	.0439	.3154
300.000			.2051	.1099

TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT55)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.986 BETA (1) = .003   X/L   .634   .742   .851   .986
                                             PHI
                                             330.000   .2239 .0751

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT56)   (22 OCT 74)

PARAMETRIC DATA

REFERENCE DATA

SREF	= 2690.0000 SQ.FT.	XMRP =	976.0000 IN. XT
LREF	= 1290.3000 IN.	YMRP =	.0000 IN. YT
BREF	= 1290.3000 IN.	ZMRP =	400.0000 IN. ZT
SCALE	= .0200		

ELV-IB =	8.000	ELV-OB =	4.000
RUDDER =	.000	MACH =	1.400
GIMBAL =	1.000		

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.071 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			-.0049	.0080
30.000		-.1455	-.0465	.0107
60.000		-.0767	-.0666	.0440
90.000	-.0208	-.0602	-.0121	.4546
120.000		-.0871	.0482	.3464
135.000		-.0953	-.1082	.4985
150.000		-.1088	.2296	.4192
165.000		-.1346	.2254	.2460
195.000			.1877	.1915
210.000			.1864	.1959
225.000			.0920	.3347
240.000			.0599	.2744
270.000	-.0805	-.0865	-.0092	.4623
300.000			-.0575	.0477
330.000			-.0437	.0017

ALPHA (2) = -.294 BETA (1) = -4.000

X/L	.634	.742	.851	.986
PHI				
.000			-.0009	.0505
30.000		-.0724	-.0263	.0400
60.000		-.0087	.0276	.0865
90.000	.0126	.0036	.0916	.2935
120.000		.0198	.2306	.6001
135.000		-.0046	.1880	.7468
150.000		-.0171	.4243	.6683
165.000		.0357	.4779	.5323
195.000			.2874	.2371
210.000			.0826	.0686
225.000			.1078	.1902
240.000			.0828	.2023
270.000	-.0956	-.1138	-.1156	.2484
300.000			-.1134	.0568
330.000			-.0387	.0507

ALPHA (2) = -.375 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
.000			-.0036	.0278
30.000		-.1503	-.0384	.0428
60.000		-.0846	-.0545	.0611
90.000	-.0255	-.0552	-.0126	.3441
120.000		-.0466	.1571	.4162

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK   (REUT56)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.375 BETA (2) = .009

X/L	.634	.742	.851	.986
PHI				
135.000		-.0607	-.0352	.5361
150.000		-.0908	.2970	.4606
165.000		-.1129	.2887	.2834
195.000			.2460	.2441
210.000			.2463	.2445
225.000			.1745	.3706
240.000			.1435	.3072
270.000	-.0620	-.0813	-.0296	.3717
300.000			-.0528	.0643
330.000			-.0365	.0361

ALPHA (2) = -.423 BETA (3) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			-.0048	.0518
30.000		-.2100	-.0391	.0501
60.000		-.1432	-.1243	.0519
90.000	-.0612	-.1056	-.1100	.2910
120.000		-.1017	.0974	.1947
135.000		-.1112	.1049	.2605
150.000		-.1457	.2114	.2626
165.000		-.1826	.1425	.1405
195.000			.2827	.4030
210.000			.3189	.4535
225.000			.2715	.5848
240.000			.1562	.5011
270.000	-.0096	-.0215	.0427	.3026
300.000			.0177	.0895
330.000			-.0279	.0314

ALPHA (3) = 3.834 BETA (1) = -.003

X/L	.634	.742	.851	.986
PHI				
.000			.0232	.1559
30.000		-.1569	-.0162	.1436
60.000		-.0851	-.0301	.0614
90.000	-.0019	-.0744	-.0874	.1982
120.000		-.0205	.2410	.4317
135.000		-.0173	.1573	.5341
150.000		-.0526	.3785	.4853
165.000		-.0044	.3601	.3063
195.000			.3287	.3003
210.000			.3250	.3063
225.000			.2503	.4002
240.000			.2216	.3443
270.000	-.0219	-.0902	-.1141	.1496
300.000			-.0293	.0513

ARC11-014IA19 OTS   SRB-NOM MPS-OFF EXT TANK -   (REUT56)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.834 BETA (1) = -.003   X/L   .634   .742   .851   .986
                                               PHI
                                               330.000   -.0159   .1396
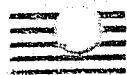
ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+EXT TANK   (REUT57)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.497 BETA (1) =   .003

X/L	.634	.742	.851	.986
PHI				
.000			.0477	.0626
30.000		-.1963	.0026	.0467
60.000		-.1247	-.0228	.0404
90.000	-.0597	-.0976	.0369	.2679
120.000		-.0618	.0276	.2542
135.000		-.0613	-.0225	.4031
150.000		-.0744	.1786	.3291
165.000		-.1961	.1581	.1322
195.000			.0769	.0356
210.000			.1286	.1400
225.000			-.0580	.3498
240.000			-.0370	.2009
270.000	-.0664	-.0902	.0155	.2607
300.000			-.0282	.0679
330.000			-.0050	.0537

ALPHA (2) = -.339 BETA (1) = -3.997

X/L	.634	.742	.851	.986
PHI				
.000			.1857	.0951
30.000		-.0945	.1863	.0585
60.000		-.0193	.2136	.0956
90.000	.0417	.0171	.1329	.3374
120.000		.0905	.3474	.4861
135.000		.0981	.3309	.6383
150.000		.0971	.4445	.5804
165.000		.0075	.4194	.3943
195.000			-.0184	-.0929
210.000			.0002	-.0112
225.000			-.0711	.2742
240.000			-.1169	.1681
270.000	-.1335	-.2164	.0150	.3808
300.000			.0909	.0803
330.000			.1866	.0895

ALPHA (2) = -.465 BETA (2) =   .019

X/L	.634	.742	.851	.986
PHI				
.000			.1797	.0732
30.000		-.1888	.1926	.0709
60.000		-.1250	.1144	.0830
90.000	-.0537	-.1054	.0648	.4221
120.000		-.0680	.1616	.3239

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+EXT TANK   (REUT57)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (2) = -.465 BETA (2) = .019

X/L	.634	.742	.851	.986
PHI				
135.000		-.0472	.1278	.4917
150.000		-.0624	.2598	.3900
165.000		-.1812	.2295	.1826
195.000			.1580	.0961
210.000			.1989	.2059
225.000			.1115	.4136
240.000			.1010	.2641
270.000	-.0645	-.1000	.0368	.4545
300.000			.1069	.1040
330.000			.1886	.0786

ALPHA (2) = -.435 BETA (3) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			.1763	.0978
30.000		-.2683	.1722	.0780
60.000		-.2207	.0907	.0607
90.000	-.1113	-.2428	.0059	.3380
120.000		-.2037	-.1202	.1442
135.000		-.1413	-.1443	.1850
150.000		-.1360	-.0525	.0184
165.000		-.1640	-.0893	-.1044
195.000			.3653	.3829
210.000			.3814	.3665
225.000			.3079	.5154
240.000			.2838	.3954
270.000	.0349	.0228	.1222	.3317
300.000			.2071	.1162
330.000			.1750	.0654

ALPHA (3) = 3.636 BETA (1) = .003

X/L	.634	.742	.851	.986
PHI				
.000			.2488	.0968
30.000		-.1851	.2253	.0580
60.000		-.1107	.2073	.0994
90.000	-.0315	-.1134	.0984	.3418
120.000		-.0401	.2762	.3604
135.000		-.0155	.2758	.4757
150.000		-.0565	.3380	.4242
165.000		-.1536	.3059	.2180
195.000			.2391	.1453
210.000			.2764	.2517
225.000			.2437	.4145
240.000			.2277	.2883
270.000	-.0631	-.1140	.0686	.3496
300.000			.2023	.1155

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+EXT TANK   (REUT57)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (3) = 3.636 BETA (1) =   .003   X/L   .634   .742   .851   .986
                                              PHI
                                              330.000   .2210   .0683

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM EXT TANK   (REUT58)   (22 OCT 74)

PARAMETRIC DATA

REFERENCE DATA

					ELV-IB =	8.000	ELV-OB =	4.000

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .000

X/L	.634	.742	.851	.986
PHI				
.000			-.0028	.0075
30.000		-.1447	-.0485	-.0034
60.000		-.0762	-.0729	.0280
90.000	-.0251	-.0580	-.0116	.4831
120.000		-.0474	.0098	.2870
135.000		-.0841	-.0854	.4505
150.000		-.1220	.1844	.4026
165.000		-.1275	.1645	.2145
195.000			.0848	.1019
210.000			.1103	.1829
225.000			-.0530	.3573
240.000			-.0117	.2584
270.000	-.0788	-.0710	-.0495	.4894
300.000			-.0691	.0455
330.000			-.0485	-.0030

ALPHA (2) = -.342 BETA (1) = 4.028

X/L	.634	.742	.851	.986
PHI				
.000			-.0020	.0428
30.000		-.2113	-.0550	.0337
60.000		-.1493	-.1551	.0155
90.000	-.0627	-.1609	-.0895	.2891
120.000		-.1915	-.0530	.1920
135.000		-.1968	-.1192	.1985
150.000		-.2107	.0201	.1066
165.000		-.2895	-.0195	-.0390
195.000			.3319	.4488
210.000			.3505	.3955
225.000			.2691	.4390
240.000			.2401	.4101
270.000	-.0004	-.0028	-.0425	.2395
300.000			.0218	.0539
330.000			-.0231	.0055

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT59)   (22 OCT 74)

REFERENCE DATA   PARAMETRIC DATA

SREF	=	2690.0000 SQ.FT.	XMRP =	976.0000 IN. XT	
LREF	=	1290.3000 IN.	YMRP =	.0000 IN. YT	
BREF	=	1290.3000 IN.	ZMRP =	400.0000 IN. ZT	
SCALE	=	.0200			

ELV-IB =	8.000	ELV-CB =	4.000
RUDDER =	.000	MACH =	1.250
GIMBAL =	1.000		

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.0269	.0687
30.000		-.1923	-.0192	.0600
60.000		-.1193	-.0364	.0365
90.000	-.0600	-.0975	.0280	.2735
120.000		-.0674	.0329	.2660
135.000		-.0647	-.0178	.4133
150.000		-.0655	.1872	.3410
165.000		-.1966	.1670	.1471
195.000			.0908	.0559
210.000			.1340	.1484
225.000			-.0437	.3542
240.000			-.0242	.2113
270.000	-.0651	-.0908	.0125	.2623
300.000			-.0421	.0606
330.000			-.0235	.0657

ALPHA (2) = -.375 BETA (1) = .012

X/L	.634	.742	.851	.986
PHI				
.000			.1779	.0891
30.000		-.1851	.1687	.0904
60.000		-.1183	.0982	.0898
90.000	-.0557	-.1059	.0503	.4218
120.000		-.0689	.1681	.3268
135.000		-.0464	.1362	.4961
150.000		-.0475	.2683	.3965
165.000		-.1789	.2399	.1973
195.000			.1642	.1102
210.000			.2000	.2192
225.000			.1129	.4271
240.000			.1071	.2766
270.000	-.0654	-.1072	.0269	.4559
300.000			.0865	.1175
330.000			.1482	.0927

ALPHA (2) = -.333 BETA (2) = 4.031

X/L	.634	.742	.851	.986
PHI				
.000			.1665	.0973
30.000		-.2620	.1518	.0792
60.000		-.2130	.0682	.0612
90.000	-.1102	-.2452	-.0163	.3481
120.000		-.2214	-.1170	.1577

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF EXT TANK   (REUT59)

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CF

ALPHA (2) = -.333 BETA (2) = 4.031

X/L	.634	.742	.851	.986
PHI				
135.000		-.1560	-.1408	.1888
150.000		-.1494	-.0359	.0318
165.000		-.1701	-.0746	-.0988
195.000			.3523	.3807
210.000			.3726	.3603
225.000			.2963	.5012
240.000			.2739	.3950
270.000	.0324	.0161	.0840	.3250
300.000			.2038	.1159
330.000			.1851	.0688
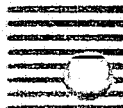
ARC11-014IA19 OTS+STRUT SRB-HI   MPS-NOM EXT TANK   (REUT60)   (22 OCT 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   1.250
GIMBAL =   1.000

SECTION (1)EXTERNAL TANK   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .012

X/L	.634	.742	.851	.986
PHI				
.000			.0189	.0693
30.000		-.1876	-.0308	.0605
60.000		-.1164	-.0390	.0396
90.000	-.0574	-.0922	.0293	.2711
120.000		-.0599	.0357	.2708
135.000		-.0613	-.0166	.4235
150.000		-.0605	.1902	.3598
165.000		-.1961	.1694	.1592
195.000			.0861	.0012
210.000			.1309	.1416
225.000			-.0470	.3508
240.000			-.0274	.2112
270.000	-.0656	-.0895	.0078	.2601
300.000			-.0426	.0643
330.000			-.0302	.0673

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP U   (REUED1)   (04 FEB 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

ELV-IB =   9.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   .900
GIMBAL =   1.000

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.2365 -.2456
                                               320.000   -.2378 -.2437

ALPHA (2) = -.216 BETA (1) = -4.006   XO   31.100 31.800
                                               PHI
                                                 .000   -.2529 -.2609
                                               320.000   -.2507 -.2574

ALPHA (2) = -.336 BETA (2) =   .006   XO   31.100 31.800
                                               PHI
                                                 .000   -.2172 -.2240
                                               320.000   -.2262 -.2274

ALPHA (2) = -.222 BETA (3) = 4.025   XO   31.100 31.800
                                               PHI
                                                 .000   -.2383 -.2511
                                               320.000   -.2480 -.2535

ALPHA (3) = 3.948 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.2005 -.2174
                                               320.000   -.2154 -.2152

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP U   (REUE02)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

  SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.176 BETA (1) =   .000   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3636 -.3696
                                                320.000   -.3667 . -.3677

ALPHA (2) = -.294 BETA (1) = -4.003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.4110 -.4156
                                                320.000   -.4151 -.4159

ALPHA (2) = -.252 BETA (2) =   .000   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3617 -.3677
                                                320.000   -.3632 -.3554

ALPHA (2) = -.225 BETA (3) = 4.028   XO   31.100 31.800
                                                 PHI
                                                   .000   -.4162 -.4204
                                                320.000   -.4196 -.4208

ALPHA (3) = 4.026 BETA (1) =   .000   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3879 -.3947
                                                320.000   -.3910 -.3906

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP U   (REUE03)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.182 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                 .000   -.3091 -.3128
                                              320.000   -.3081 -.3099

ALPHA (2) = -.291 BETA (1) = -3.997   XO   31.100 31.800
                                                PHI
                                                 .000   -.3448 -.3459
                                              320.000   -.3457 -.3475

ALPHA (2) = -.177 BETA (2) =   .016   XO   31.100 31.800
                                                PHI
                                                 .000   -.3097 -.3144
                                              320.000   -.3116 -.3141

ALPHA (2) = -.366 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                 .000   -.3471 -.3505
                                              320.000   -.3503 -.3511

ALPHA (3) = 3.843 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                 .000   -.3361 -.3394
                                              320.000   -.3374 -.3381

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP U   (REUE04)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .009   XO   31.100 31.800
                                                PHI
                                                 .000   -.2848 -.2842
                                                320.000 -.2848 -.2836

ALPHA (2) = -.204 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                 .000   -.2943 -.4062
                                                320.000 -.2961 -.2972

ALPHA (2) = -.306 BETA (2) =   .016   XO   31.100 31.800
                                                PHI
                                                 .000   -.2775 -.2808
                                                320.000 -.2768 -.2771

ALPHA (2) = -.267 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                 .000   -.2935 -.2947
                                                320.000 -.2906 -.2891

ALPHA (3) = 4.392 BETA (1) =   .012   XO   31.100 31.800
                                                PHI
                                                 .000   -.2925 -.2881
                                                320.000 -.2919 -.2808

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REVEO5)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

```
SREF =  2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT        ELV-IB =   8.000   ELV-OB =   4.000
LREF =  1290.3000 IN.      YMRP =     .0000 IN. YT         RUDDER =    .000   MACH   =    .900
BREF =  1290.3000 IN.      ZMRP =   400.0000 IN. ZT        GIMBAL =   1.000
SCALE =    .0200
```

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

```
ALPHA ( 1) = -4.119  BETA ( 3) =  -.006      XO       31.100  31.800
                                             PHI
                                               .000   -.3748  -.4271
                                             320.000   -.4575  -.5013

ALPHA ( 2) =  -.306  BETA ( 1) = -4.000      XO       31.100  31.800
                                             PHI
                                               .000   -.4315  -.4782
                                             320.000   -.5130  -.5420

ALPHA ( 2) =  -.264  BETA ( 2) =   .016      XO       31.100  31.800
                                             PHI
                                               .000   -.3559  -.4105
                                             320.000   -.4334  -.4874

ALPHA ( 2) =  -.348  BETA ( 3) =  4.028      CX       31.100  31.800
                                             PHI
                                               .000   -.4115  -.5033
                                             320.000   -.4530  -.5450

ALPHA ( 3) =  3.924  BETA ( 1) =   .000      XO       31.100  31.800
                                             PHI
                                               .000   -.3460  -.3959
                                             320.000   -.4012  -.4443
```

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REV006)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   3.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.074 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                 .000   -.4569 -.4950
                                               320.000   -.4723 -.5046

ALPHA (2) = -.396 BETA (1) = -4.003   XO   31.100 31.800
                                                PHI
                                                 .000   -.5081 -.5550
                                               320.000   -.5292 -.5597

ALPHA (2) = -.408 BETA (2) =   .000   XO   31.100 31.800
                                                PHI
                                                 .000   -.4521 -.4979
                                               320.000   -.4682 -.5083

ALPHA (2) = -.339 BETA (3) = 4.028   XO   31.100 31.800
                                                PHI
                                                 .000   -.5105 -.5527
                                               320.000   -.5297 -.5695

ALPHA (3) = 3.984 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                 .000   -.4781 -.5280
                                               320.000   -.4849 -.5249

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REUE07)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.131 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.3399 -.3704
                                               320.000   -.3499 -.3751

ALPHA (2) = -.300 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000   -.3762 -.4098
                                               320.000   -.3922 -.4021

ALPHA (2) = -.411 BETA (2) =   .012   XO   31.100 31.800
                                               PHI
                                                 .000   -.3515 -.3797
                                               320.000   -.3497 -.3730

ALPHA (2) = -.438 BETA (3) = 4.031   XO   31.100 31.800
                                               PHI
                                                 .000   -.3767 -.4173
                                               320.000   -.3734 -.4103

ALPHA (3) = 3.582 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.3722 -.4034
                                               320.000   -.3635 -.3913

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REVE08)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) =   .006   CX   31.100 31.800
                                                 PHI
                                                    .000   -.2522 -.2768
                                                 320.000   -.2562 -.2717

ALPHA (2) = -.486 BETA (1) = -4.000   CX   31.100 31.800
                                                 PHI
                                                    .000   -.2880 -.3167
                                                 320.000   -.2809 -.2982

ALPHA (2) = -.438 BETA (2) =   .016 .   CX   31.100 31.800
                                                 PHI
                                                    .000   -.2664 -.2904
                                                 320.000   -.2613 -.2759

ALPHA (2) = -.456 BETA (3) = 4.028   CX   31.100 31.800
                                                 PHI
                                                    .000   -.2792 -.3028
                                                 320.000   -.2739 -.2900

ALPHA (3) = 4.014 BETA (1) =   .009   CX   31.100 31.800
                                                 PHI
                                                    .000   -.2793 -.3028
                                                 320.000   -.2736 -.2915

ARC11-014IA19 OTS+STRUT SEB-LOW MPS-NOM BDFLAP U   (REUED9)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.3852 -.4609
                                              320.000   -.4779 -.5271

ALPHA (2) = -.438 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000   -.4179 -.4655
                                              320.000   -.5475 -.5813

ALPHA (2) = -.525 BETA (2) = -.003   XO   31.100 31.800
                                               PHI
                                                 .000   -.3521 -.4022
                                              320.000   -.4381 -.4662

ALPHA (2) = -.441 BETA (3) = 4.025   XO   31.100 31.800
                                               PHI
                                                 .000   -.4242 -.5001
                                              320.000   -.4918 -.5290

ALPHA (3) = 4.050 BETA (1) =   .006   XO   31.100 31.800
                                               PHI
                                                 .000   -.3445 -.3997
                                              320.000   -.4201 -.4739

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM BDFLAP U   (REVE1O)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   9.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.978 BETA (1) = -.006   XO   31.100 31.800
                                              PHI
                                               .000   -.4701 -.5100
                                             320.000   -.4851 -.5216

ALPHA (2) = -.387 BETA (1) = -4.003   XO   31.100 31.800
                                              PHI
                                               .000   -.5271 -.5677
                                             320.000   -.5445 -.5753

ALPHA (2) = -.429 BETA (2) =   .009   XO   31.100 31.800
                                              PHI
                                               .000   -.4754 -.5145
                                             320.000   -.4924 -.5184

ALPHA (2) = -.384 BETA (3) = 4.028   XO   31.100 31.800
                                              PHI
                                               .000   -.5178 -.5646
                                             320.000   -.5413 -.5798

ALPHA (3) = 3.930 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                               .000   -.5037 -.5423
                                             320.000   -.5029 -.5359

ARC11-014IA19 OTS+STRUT SRB-LOW WPS-VOM BOFLAP U   (REVE11)   (04 FEB 75)

REFERENCE DATA			PARAMETRIC DATA	

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   1.250
GIMBAL =   1.000

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.740 BETA (1) =   .006   XO   31.100 31.800
                                               PHI
                                                  .000   -.3629 -.3907
                                               320.000   -.3665 -.3879

ALPHA (2) = -.444 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                  .000   -.3832 -.4206
                                               320.000   -.3936 -.4177

ALPHA (2) = -.402 BETA (2) =   .012   XO   31.100 31.800
                                               PHI
                                                  .000   -.3762 -.4033
                                               320.000   -.3715 -.3909

ALPHA (2) = -.324 BETA (3) = 4.034   XO   31.100 31.800
                                               PHI
                                                  .000   -.3920 -.4235
                                               320.000   -.3857 -.4125

ALPHA (3) = 3.552 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                  .000   -.3877 -.4184
                                               320.000   -.3796 -.4001

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM BDFLAP U   (REVE12)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.128 BETA (1) =   .000   CX   31.100 31.800
                                               PHI
                                                 .000   -.2844 -.3030
                                              320.000   -.2813 -.2957

ALPHA (2) = -.396 BETA (1) = -4.003   CX   31.100 31.800
                                               PHI
                                                 .000   -.3043 -.3259
                                              320.000   -.3001 -.3146

ALPHA (2) = -.378 BETA (2) =   .006   CX   31.100 31.800
                                               PHI
                                                 .000   -.2918 -.3090
                                              320.000   -.2826 -.2941

ALPHA (2) = -.315 BETA (3) = 4.025   CX   31.100 31.800
                                               PHI
                                                 .000   -.3036 -.3219
                                              320.000   -.2977 -.3108

ALPHA (3) = 4.005 BETA (1) =   .000   CX   31.100 31.800
                                               PHI
                                                 .000   -.2990 -.3217
                                              320.000   -.2933 -.3071

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF BDFLAP U   (REUE13)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF. = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.114 BETA (1) = -.003   XO   31.100 31.800
                                              PHI
                                                 .000   -.2512 -.2687
                                              320.000   -.2550 -.2717

ALPHA (2) = -.394 BETA (1) = -3.997   XO   31.100 31.800
                                              PHI
                                                 .000   -.2634 -.2722
                                              320.000   -.2602 -.2777

ALPHA (2) = -.378 BETA (2) = .016   XO   31.100 31.800
                                              PHI
                                                 .000   -.2277 -.2329
                                              320.000   -.2318 -.2335

ALPHA (2) = -.327 BETA (3) = 4.028   XO   31.100 31.800
                                              PHI
                                                 .000   -.2429 -.2771
                                              320.000   -.2568 -.2794

ALPHA (3) = 3.909 BETA (1) = .000   XO   31.100 31.800
                                              PHI
                                                 .000   -.2239 -.2280
                                              320.000   -.2306 -.2298

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF BDFLAP U　　　　　(REUE14)　(04 FEB 75)

REFERENCE DATA

PARAMETRIC DATA

SREF　=　2690.0000 SQ.FT.　XMRP　=　976.0000 IN. XT
LREF　=　1290.3000 IN.　　YMRP　=　　.0000 IN. YT
BREF　=　1290.3000 IN.　　ZMRP　=　400.0000 IN. ZT
SCALE =　　.0200

ELV-IB =　　8.000　ELV-OB =　　4.000
RUDDER =　　.000　MACH　 =　　1.100
GIMBAL =　1.000

SECTION (1)BODY FLAP UPPER　　　　　　　DEPENDENT VARIABLE CP

ALPHA (1) = -5.142　BETA　(1) = -.006

XO	31.100	31.800
PHI		
.000	-.3440	-.3502
320.000	-.3459	-.3475

ALPHA (2) = -.321　BETA　(1) = -4.003

XO	31.100	31.800
PHI		
.000	-.3824	-.3891
320.000	-.3854	-.3871

ALPHA (2) = -.434　BETA　(2) =　.016

XO	31.100	31.800
PHI		
.000	-.3342	-.3425
320.000	-.3358	-.3378

ALPHA (2) = -.396　BETA　(3) = 4.025

XO	31.100	31.800
PHI		
.000	-.3847	-.3900
320.000	-.3869	-.3907

ALPHA (3) = 3.864　BETA　(1) =　.003

XO	31.100	31.800
PHI		
.000	-.3594	-.3670
320.000	-.3598	-.3618

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF BDFLAP U   (REUE15)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.119 BETA (1) =   .003   XO   31.100 31.800
                                              PHI
                                                .000   -.2586 -.2648
                                              320.000 -.2590 -.2610

ALPHA (2) = -.390 BETA (1) = -4.000   XO   31.100 31.800
                                              PHI
                                                .000   -.2844 -.2831
                                              320.000 -.2839 -.2853

ALPHA (2) = -.369 BETA (2) =   .012   XO   31.100 31.800
                                              PHI
                                                .000   -.2553 -.2590
                                              320.000 -.2561 -.2554

ALPHA (2) = -.294 BETA (3) = 4.028   XO   31.100 31.800
                                              PHI
                                                .000   -.2804 -.2950
                                              320.000 -.2791 -.2901

ALPHA (3) = 3.834 BETA (1) =   .012   XO   31.100 31.800
                                              PHI
                                                .000   -.2741 -.2842
                                              320.000 -.2780 -.2821

ARC11-014IA19 OTS+STRUT SRB-NOM NES-OFF BDFLAP U   (REUE16)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.098 BETA (1) =   .012   XO   31.100 31.800
                                                PHI
                                                   .000   -.2054 -.2121
                                                320.000   -.2061 -.2072

ALPHA (2) = -.398 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                   .000   -.2070 -.2166
                                                320.000   -.2088 -.2093

ALPHA (2) = -.291 BETA (2) = -.003   XO   31.100 31.800
                                                PHI
                                                   .000   -.2047 -.2110
                                                320.000   -.2057 -.2065

ALPHA (2) = -.318 BETA (3) = 4.025   XO   31.100 31.800
                                                PHI
                                                   .000   -.2093 -.2116
                                                320.000   -.2036 -.2075

ALPHA (3) = 3.861 BETA (1) = -.006   XO   31.100 31.800
                                                PHI
                                                   .000   -.2105 -.2128
                                                320.000   -.2085 -.2111

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI BDFLAP U   (REVE17)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1) BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .000   XO   31.100 31.800
                                                  PHI
                                                      .000   -.3707 -.4371
                                                  320.000   -.4632 -.5142

ALPHA (2) = -.426 BETA (1) = -4.003   XO   31.100 31.800
                                                  PHI
                                                      .000   -.4325 -.4901
                                                  320.000   -.5653 -.5971

ALPHA (2) = -.447 BETA (2) =   .000   XO   31.100 31.800
                                                  PHI
                                                      .000   -.3835 -.4274
                                                  320.000   -.4833 -.5144

ALPHA (2) = -.435 BETA (3) = 4.028   XO   31.100 31.800
                                                  PHI
                                                      .000   -.4512 -.4949
                                                  320.000   -.5042 -.5364

ALPHA (3) = 3.930 BETA (1) =   .000   XO   31.100 31.800
                                                  PHI
                                                      .000   -.3782 -.4596
                                                  320.000   -.4632 -.5311

ARC11-014IA19 OTS+STRUT SRB-4I MPS-HI BDFLAP U   (REVE19) (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.098 BETA (1) =   .000   XO   31.100 31.800
                                             PHI
                                                .000   -.3872 -.4338
                                             320.000 -.4140 -.4586

ALPHA (2) = -.396 BETA (1) = -4.003   XO   31.100 31.800
                                             PHI
                                                .000   -.4425 -.4978
                                             320.000 -.4765 -.5142

ALPHA (2) = -.438 BETA (2) =   .009   XO   31.100 31.800
                                             PHI
                                                .000   -.3854 -.4355
                                             320.000 -.4064 -.4526

ALPHA (2) = -.573 BETA (3) = 4.028   XO   31.100 31.800
                                             PHI
                                                .000   -.4330 -.4980
                                             320.000 -.4615 -.5081

ALPHA (3) = 3.915 BETA (1) =   .000   XO   31.100 31.800
                                             PHI
                                                .000   -.4119 -.4593
                                             320.000 -.4235 -.4727

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI BDFLAP U   (REUE19)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

    SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.185 BETA (1) = -.009   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2702 -.3093
                                                 320.000   -.2876 -.3183

ALPHA (2) = -.459 BETA (1) = -4.000   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3108 -.3569
                                                 320.000   -.3275 -.3516

ALPHA (2) = -.438 BETA (2) =   .012   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2844 -.3248
                                                 320.000   -.2919 -.3250

ALPHA (2) = -.549 BETA (3) = 4.028   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3010 -.3647
                                                 320.000   -.3063 -.3530

ALPHA (3) = 3.516 BETA (1) =   .012   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3065 -.3467
                                                 320.000   -.3134 -.3444

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI BDFLAP U   (REUE20)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2092 -.2340
                                               320.000   -.2250 -.2398

ALPHA (2) = -.489 BETA (1) = -4.003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2290 -.2690
                                               320.000   -.2427 -.2546

ALPHA (2) = -.432 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                 .000   -.2147 -.2486
                                               320.000   -.2166 -.2401

ALPHA (2) = -.486 BETA (3) = 4.025   XO   31.100 31.800
                                               PHI
                                                 .000   -.2237 -.2618
                                               320.000   -.2316 -.2547

ALPHA (3) = 3.657 BETA (1) =   .009   XO   31.100 31.800
                                               PHI
                                                 .000   -.2284 -.2631
                                               320.000   -.2325 -.2554

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP U   (REVE21)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.200 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                  .000   -.2810 -.2849
                                               320.000   -.2845 -.2846

ALPHA (2) = -.180 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                  .000   -.2919 -.2945
                                               320.000   -.2931 -.2953

ALPHA (2) = -.291 BETA (2) =   .012   XO   31.100 31.800
                                               PHI
                                                  .000   -.2729 -.2750
                                               320.000   -.2744 -.2738

ALPHA (2) = -.306 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                  .000   -.2915 -.2949
                                               320.000   -.2912 -.2925

ALPHA (3) = 3.969 BETA (1) =   .006   XO   31.100 31.800
                                               PHI
                                                  .000   -.2858 -.2879
                                               320.000   -.2873 -.2865

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REUE22)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.16° BETA (1) =   .006   XO   31.100 31.800
                                             PHI
                                              .000   -.2468 -.2760
                                           320.000   -.2531 -.2700

ALPHA (2) = -.348 BETA (1) = -3.997   XO   31.100 31.800
                                             PHI
                                              .000   -.2782 -.3075
                                           320.000   -.2788 -.2915

ALPHA (2) = -.366 BETA (2) =   .012   XO   31.100 31.800
                                             PHI
                                              .000   -.2576 -.2824
                                           320.000   -.2515 -.2680

ALPHA (2) = -.522 BETA (3) = 4.031   XO   31.100 31.800
                                             PHI
                                              .000   -.2714 -.2944
                                           320.000   -.2682 -.2846

ALPHA (3) = 3.942 BETA (1) =   .012   XO   31.100 31.800
                                             PHI
                                              .000   -.2710 -.2970
                                           320.000   -.2674 -.2863

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP U   (REUE23)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.047 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                 .000   -.2467 -.2608
                                                320.000 -.2543 -.2630

ALPHA (2) = -.276 BETA (1) = -4.003   XO   31.100 31.800
                                                PHI
                                                 .000   -.2893 -.2974
                                                320.000 -.2836 -.3011

ALPHA (2) = -.237 BETA (2) =   .009   XO   31.100 31.800
                                                PHI
                                                 .000   -.2230 -.2109
                                                320.000 -.2247 -.2158

ALPHA (2) = -.195 BETA (3) = 4.028   XO   31.100 31.800
                                                PHI
                                                 .000   -.2485 -.2454
                                                320.000 -.2514 -.2454

ALPHA (3) = 3.855 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                 .000   -.2251 -.2298
                                                320.000 -.2263 -.2298

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP U   (REUE24)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .000   XO   31.100 31.800
                                                  PHI
                                                    .000 -.3591 -.3659
                                                 320.000 -.3616 -.3637

ALPHA (2) = -.279 BETA (1) = -4.003 ·   XO   31.100 31.800
                                                  PHI
                                                    .000 -.3976 -.4006
                                                 320.000 -.3951 -.3974

ALPHA (2) = -.246 BETA (2) =   .000   XO   31.100 31.800
                                                  PHI
                                                    .000 -.3582 -.3622
                                                 320.000 -.3565 -.3612

ALPHA (2) = -.273 BETA (3) = 4.025   XO   31.100 31.800
                                                  PHI
                                                    .000 -.4097 -.4130
                                                 320.000 -.4119 -.4125

ALPHA (3) = 3.854 BETA (1) = -.003   XO   31.100 31.800
                                                  PHI
                                                    .000 -.3767 -.3834
                                                 320.000 -.3767 -.3804

ARC11-014IA19 OTS+STRUT SRB-OFF NPS-OFF BDFLAP U   (REUE25)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   = 1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.975 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3029 -.3098
                                                 320.000 -.3058 -.3093

ALPHA (2) = -.255 BETA (1) = -4.000   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3258 -.3283
                                                 320.000 -.3262 -.3293

ALPHA (2) = -.285 BETA (2) =   .012   XO   31.100 31.800
                                                 PHI
                                                   .000   -.2987 -.3012
                                                 320.000 -.2979 -.2990

ALPHA (2) = -.189 BETA (3) = 4.031   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3337 -.3383
                                                 320.000 -.3358 -.3381

ALPHA (3) = 4.008 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3253 -.3297
                                                 320.000 -.3269 -.3273

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP U   (REUE26)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.909 BETA (1) =   .009   XO   31.100 31.800
                                                PHI
                                                   .000   -.2687 -.2676
                                                320.000   -.2659 -.2721

ALPHA (2) = -.243 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                   .000   -.2773 -.2795
                                                320.000   -.2777 -.2796

ALPHA (2) = -.237 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                   .000   -.2694 -.2618
                                                320.000   -.2585 -.2609

ALPHA (2) = -.234 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                   .000   -.2808 -.2845
                                                320.000   -.2804 -.2806

ALPHA (3) = 4.047 BETA (1) =   .006   XO   31.100 31.800
                                                PHI
                                                   .000   -.2727 -.2736
                                                320.000   -.2728 -.2741

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REUE27)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.125 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                  .000   -.3898 -.4657
                                               320.000   -.4616 -.5213

ALPHA (2) = -.396 BETA (1) = -4.003   XO   31.100 31.800
                                               PHI
                                                  .000   -.4626 -.5104
                                               320.000   -.5061 -.5493

ALPHA (2) = -.408 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                  .000   -.3446 -.4028
                                               320.000   -.4078 -.4685

ALPHA (2) = -.334 BETA (3) = 4.025   XO   31.100 31.800
                                               PHI
                                                  .000   -.4240 -.4927
                                               320.000   -.4877 -.5339

ALPHA (3) = 3.792 BETA (1) = -.003   XO   31.100 31.800
                                               PHI
                                                  .000   -.3338 -.3810
                                               320.000   -.3843 -.4295

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REUE28)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                  .000   -.4274 -.4664
                                               320.000   -.4596 -.4912

ALPHA (2) = -.465 BETA (1) = -4.003   XO   31.100 31.800
                                                PHI
                                                  .000   -.4688 -.5194
                                               320.000   -.5008 -.5371

ALPHA (2) = -.447 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                  .000   -.4299 -.4675
                                               320.000   -.4523 -.4870

ALPHA (2) = -.409 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                  .000   -.4732 -.5252
                                               320.000   -.5081 -.5202

ALPHA (3) = 3.819 BETA (1) =   .009   XO   31.100 31.800
                                                PHI
                                                  .000   -.4472 -.4924
                                               320.000   -.4662 -.5112

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REUE29)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) =   .006   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3029 -.3339
                                                 320.000   -.3305 -.3560

ALPHA (2) = -.375 BETA (1) = -3.997   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3300 -.3647
                                                 320.000   -.3536 -.3873

ALPHA (2) = -.400 BETA (2) =   .012   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3118 -.3431
                                                 320.000   -.3258 -.3600

ALPHA (2) = -.385 BETA (3) = 4.031   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3421 -.3862
                                                 320.000   -.3540 -.3935

ALPHA (3) = 3.843 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3235 -.3633
                                                 320.000   -.3408 -.3846

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REUE30)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.224 BETA (1) =   .006   XO   31.100 31.800
                                                PHI
                                                  .000   -.2211 -.2527
                                               320.000   -.2454 -.2696

ALPHA (2) = -.444 BETA (1) = -3.997   XO   31.100 31.800
                                                PHI
                                                  .000   -.2550 -.2871
                                               320.000   -.2592 -.2799

ALPHA (2) = -.409 BETA (2) =   .016   XO   31.100 31.800
                                                PHI
                                                  .000   -.2358 -.2650
                                               320.000   -.2331 -.2635

ALPHA (2) = -.360 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                  .000   -.2400 -.2724
                                               320.000   -.2358 -.2626

ALPHA (3) = 3.819 BETA (1) =   .009   XO   31.100 31.800
                                                PHI
                                                  .000   -.2461 -.2801
                                               320.000   -.2483 -.2861

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP U   (REV031)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.020 BETA (1) =   .006   XO   31.100 31.800
                                              PHI
                                                 .000   -.2308 -.2305
                                              320.000   -.2340 -.2378

ALPHA (2) = -.288 BETA (1) = -4.003   XO   31.100 31.800
                                              PHI
                                                 .000   -.2680 -.2811
                                              320.000   -.2701 -.2793

ALPHA (2) = -.279 BETA (2) =   .009   XO   31.100 31.800
                                              PHI
                                                 .000   -.2117 -.2043
                                              320.000   -.2135 -.2057

ALPHA (2) = -.264 BETA (3) = 4.031   XO   31.100 31.800
                                              PHI
                                                 .000   -.2460 -.2545
                                              320.000   -.2486 -.2523

ALPHA (3) = 3.976 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                 .000   -.2111 -.2082
                                              320.000   -.2133 -.2157

ARC11-014IA19 OTS+STRUT SRB-OFF NPS-OFF BDFLAP U   (REUE32)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                  .000   -.3413 -.3488
                                               320.000   -.3426 -.3424

ALPHA (2) = -.255 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                  .000   -.3637 -.3687
                                               320.000   -.3644 -.3662

ALPHA (2) = -.213 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                  .000   -.3173 -.3227
                                               320.000   -.3147 -.3173

ALPHA (2) = -.219 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                  .000   -.3809 -.3873
                                               320.000   -.3865 -.3875

ALPHA (3) = 3.981 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                  .000   -.3417 -.3425
                                               320.000   -.3384 -.3364

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP U   (REVE33)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.044 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.2884 -.2982
                                                320.000   -.2922 -.2933

ALPHA (2) = -.198 BETA (1) = -4.000   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3153 -.3216
                                                320.000   -.3164 -.3183

ALPHA (2) = -.162 BETA (2) =   .009   XO   31.100 31.800
                                                 PHI
                                                   .000   -.2891 -.2978
                                                320.000   -.2919 -.2917

ALPHA (2) = -.210 BETA (3) = 4.031   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3292 -.3376
                                                320.000   -.3332 -.3361

ALPHA (3) = 3.846 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3129 -.3199
                                                320.000   -.3105 -.3116

ARC11-014IA19 OTS+STRUT SRB-OFF MFS-OFF BDFLAP U   (REUE34)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.2622 -.2658
                                             320.000   -.2630 -.2610

ALPHA (2) = -.231 BETA (1) = -4.000   XO   31.100 31.800
                                              PHI
                                                .000   -.2776 -.2791
                                             320.000   -.2770 -.2757

ALPHA (2) = -.231 BETA (2) =   .009   XO   31.100 31.800
                                              PHI
                                                .000   -.2559 -.2609
                                             320.000   -.2530 -.2547

ALPHA (2) = -.210 BETA (3) = 4.028   XO   31.100 31.800
                                              PHI
                                                .000   -.2833 -.2877
                                             320.000   -.2830 -.2869

ALPHA (3) = 3.930 BETA (1) =   .003   XO   31.100 31.800
                                              PHI
                                                .000   -.2683 -.2747
                                             320.000   -.2664 -.2683

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REUE35)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.308 BETA (1) =   .009   XO   31.100 31.800
                                              PHI
                                                 .000   -.4300 -.4486
                                              320.000   -.4286 -.4431

ALPHA (2) = -.390 BETA (1) = -4.000   XO   31.100 31.800
                                              PHI
                                                 .000   -.4913 -.5133
                                              320.000   -.4728 -.4808

ALPHA (2) = -.384 BETA (2) =   .012   XO   31.100 31.800
                                              PHI
                                                 .000   -.4192 -.4109
                                              320.000   -.4162 -.3983

ALPHA (2) = -.345 BETA (3) = 4.025   XO   31.100 31.800
                                              PHI
                                                 .000   -.4807 -.4855
                                              320.000   -.4698 -.4948

ALPHA (3) = 3.903 BETA (1) =   .006   XO   31.100 31.800
                                              PHI
                                                 .000   -.3921 -.4097
                                              320.000   -.3919 -.4081

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REUE36)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.908 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                  .000   -.4628 -.4900
                                               320.000   -.4906 -.4838

ALPHA (2) = -.342 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                  .000   -.5020 -.5221
                                               320.000   -.5168 -.5308

ALPHA (2) = -.318 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                  .000   -.4351 -.4620
                                               320.000   -.4514 -.4552

ALPHA (2) = -.417 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                  .000   -.5132 -.5295
                                               320.000   -.5094 -.4953

ALPHA (3) = 3.717 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                  .000   -.4888 -.5133
                                               320.000   -.5068 -.5059

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REUE37) (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.149 BETA (1) =   .006   XO   31.100 31.800
                                                  PHI
                                                     .000   -.3468 -.3793
                                                  320.000   -.3795 -.3739

ALPHA (2) = -.414 BETA (1) = -4.003   XO   31.100 31.800
                                                  PHI
                                                     .000   -.3732 -.3937
                                                  320.000   -.3852 -.3996

ALPHA (2) = -.459 BETA (2) =   .009   XO   31.100 31.800
                                                  PHI
                                                     .000   -.3512 -.3768
                                                  320.000   -.3727 -.3801

ALPHA (2) = -.468 BETA (3) = 4.028   XO   31.100 31.800
                                                  PHI
                                                     .000   -.3823 -.3990
                                                  320.000   -.3897 -.3857

ALPHA (3) = 3.864 BETA (1) =   .003   XO   31.100 31.800
                                                  PHI
                                                     .000   -.3717 -.3964
                                                  320.000   -.3918 -.3997

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP U   (REUE38)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2617 -.2780
                                                 320.000   -.2911 -.2823

ALPHA (2) = -.387 BETA (1) = -4.000   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2785 -.2945
                                                 320.000   -.2752 -.2897

ALPHA (2) = -.318 BETA (2) =   .009   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2698 -.2820
                                                 320.000   -.2672 -.2811

ALPHA (2) = -.354 BETA (3) = 4.031   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2756 -.2947
                                                 320.000   -.2748 -.2760

ALPHA (3) = 3.939 BETA (1) =   .000   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2720 -.2928
                                                 320.000   -.2731 -.2985

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP U   (REUE39)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -8.139 BETA (1) =   .000   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2566 -.2479
                                                 320.000   -.2599 -.2409

ALPHA (2) = -4.032 BETA (1) =   .000   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2293 -.2189
                                                 320.000   -.2351 -.2119

ALPHA (3) = -.228 BETA (1) = -4.003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2268 -.2323
                                                 320.000   -.2354 -.2205

ALPHA (3) = -.249 BETA (2) =   .012   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2086 -.2117
                                                 320.000   -.2130 -.1975

ALPHA (3) = -.261 BETA (3) = 4.028   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2330 -.2443
                                                 320.000   -.2338 -.2264

ALPHA (4) = 4.032 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2213 -.2148
                                                 320.000   -.2233 -.2031

ALPHA (5) = 7.920 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2262 -.2301
                                                 320.000   -.2296 -.2227

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP U   (REUE40)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -7.990 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                 .000   -.3307 -.3341
                                                320.000 -.3325 -.3132

ALPHA (2) = -4.080 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                 .000   -.3338 -.3378
                                                320.000 -.3368 -.3138

ALPHA (3) = -.225 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                 .000   -.3763 -.3814
                                                320.000 -.3724 -.3465

ALPHA (3) = -.159 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                 .000   -.3366 -.3444
                                                320.000 -.3394 -.3143

ALPHA (3) = -.312 BETA (3) = 4.028   XO   31.100 31.800
                                                PHI
                                                 .000   -.3528 -.3592
                                                320.000 -.3566 -.3342

ALPHA (4) = 3.885 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                 .000   -.3772 -.3811
                                                320.000 -.3791 -.3473

ALPHA (5) = 8.073 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                 .000   -.4231 -.4269
                                                320.000 -.4289 -.3927

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP U   (REUE41)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -8.232 BETA (1) = -.006   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3006 -.3048
                                                320.000   -.3035 -.2841

ALPHA (2) = -4.098 BETA (1) = -.006   XO   31.100 31.800
                                                 PHI
                                                   .000   -.2898 -.2912
                                                320.000   -.2898 -.2665

ALPHA (3) = -.245   BETA (1) = -4.000   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3144 -.3236
                                                320.000   -.3105 -.2900

ALPHA (3) = -.171   BETA (2) = .012   XO   31.100 31.800
                                                 PHI
                                                   .000   -.2940 -.2931
                                                320.000   -.2934 -.2672

ALPHA (3) = -.171   BETA (3) = 4.025   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3198 -.3244
                                                320.000   -.3180 -.3015

ALPHA (4) = 7.860   BETA (1) = -.003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3512 -.3584
                                                320.000   -.3510 -.3245

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP U   (REUE42)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.059 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.2586 -.2607
                                               320.000 -.2601 -.2173

ALPHA (2) = -.181 BETA (1) = -3.997   XO   31.100 31.800
                                               PHI
                                                 .000   -.2688 -.2732
                                               320.000 -.2680 -.2295

ALPHA (2) = -.193 BETA (2) =   .012   XO   31.100 31.800
                                               PHI
                                                 .000   -.2503 -.2539
                                               320.000 -.2500 -.2186

ALPHA (2) =   .024 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                 .000   -.2723 -.2731
                                               320.000 -.2744 -.2398

ALPHA (3) = 3.924 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2620 -.2614
                                               320.000 -.2614 -.2262

ALPHA (4) = 7.809 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2746 -.2790
                                               320.000 -.2749 -.2419

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP U   (REUE43)   (04 FEB 76)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -8.133 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2858 -.2968
                                               320.000 -.2928 -.2888

ALPHA (2) = -4.004 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2452 -.2263
                                               320.000 -.2444 -.2165

ALPHA (3) = -.342 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000   -.2480 -.2512
                                               320.000 -.2460 -.2417

ALPHA (3) = -.357 BETA (2) =   .012   XO   31.100 31.800
                                               PHI
                                                 .000   -.2232 -.2319
                                               320.000 -.2281 -.2186

ALPHA (3) = -.288 BETA (3) = 4.022   XO   31.100 31.800
                                               PHI
                                                 .000   -.2373 -.2457
                                               320.000 -.2451 -.2451

ALPHA (4) = 3.924 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.2165 -.2235
                                               320.000 -.2262 -.2116

ALPHA (5) = 7.962 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.2165 -.2204
                                               320.000 -.2206 -.2040

ARC11-014IA19 OTS   SRB-NO4 MPS-OFF BDFLAP U   (REUE44)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -8.190 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.3035 -.3079
                                              320.000 -.3055 -.2851

ALPHA (2) = -4.038 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.3145 -.3221
                                              320.000 -.3160 -.2934

ALPHA (3) = -.363 BETA (1) = -4.008   XO   31.100 31.800
                                              PHI
                                                .000   -.3614 -.3665
                                              320.000 -.3557 -.3308

ALPHA (3) = -.363 BETA (2) =   .012   XO   31.100 31.800
                                              PHI
                                                .000   -.3261 -.3321
                                              320.000 -.3264 -.3022

ALPHA (3) = -.393 BETA (3) = 4.022   XO   31.100 31.800
                                              PHI
                                                .000   -.3351 -.3399
                                              320.000 -.3374 -.3175

ALPHA (4) = 3.888 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.3771 -.3835
                                              320.000 -.3764 -.3481

ALPHA (5) = 7.977 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.4069 -.4122
                                              320.000 -.4066 -.3759

ARC11-014TA19 OTS   SRB-NOM MPS-OFF BDFLAP U   (REUE45)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -6.244 BETA (1) = -.009   XO   31.100 31.800
                                              PHI
                                                .000   -.2417   -.2428
                                              320.000   -.2417   -.2267

ALPHA (2) = -3.936 BETA (1) = -.009   XO   31.100 31.800
                                              PHI
                                                .000   -.2433   -.2477
                                              320.000   -.2435   -.2264

ALPHA (3) = -.309 BETA (1) = -4.000   XO   31.100 31.800
                                              PHI
                                                .000   -.2520   -.2600
                                              320.000   -.2528   -.2328

ALPHA (3) = -.360 BETA (2) =   .009   XO   31.100 31.800
                                              PHI
                                                .000   -.2415   -.2466
                                              320.000   -.2439   -.2243

ALPHA (3) = -.405 BETA (3) = 4.025   XO   31.100 31.800
                                              PHI
                                                .000   -.2569   -.2635
                                              320.000   -.2546   -.2410

ALPHA (4) = 3.873 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.2637   -.2711
                                              320.000   -.2622   -.2424

ALPHA (5) = 7.989 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.2937   -.2990
                                              320.000   -.2917   -.2636

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP U   (REUE46)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -8.179 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1819 -.1865
                                                 320.000   -.1849 -.1715

ALPHA (2) = -4.098 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1858 -.1895
                                                 320.000   -.1850 -.1699

ALPHA (3) = -.348 BETA (1) = -4.000   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1897 -.1948
                                                 320.000   -.1916 -.1702

ALPHA (3) = -.369 BETA (2) =   .016   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1841 -.1875
                                                 320.000   -.1839 -.1642

ALPHA (3) = -.360 BETA (3) = 4.028   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1939 -.1964
                                                 320.000   -.1910 -.1730

ALPHA (4) = 3.900 BETA (1) =   .006   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1911 -.1951
                                                 320.000   -.1919 -.1667

ALPHA (5) = 7.653 BETA (1) =   .006   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2059 -.2117
                                                 320.000   -.2054 -.1789

ARC11-014IA19 OTS   SRB-OFF NFS-OFF BDFLAP U   (REUE47)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.050 BETA (1) = -.003   XO   31.100 31.800
                                              PHI
                                               .000   -.2775 -.2816
                                             320.000   -.2760 -.2585

ALPHA (2) = -.153 BETA (1) = -4.000   XO   31.100 31.800
                                              PHI
                                               .000   -.2787 -.2785
                                             320.000   -.2754 -.2533

ALPHA (2) = -.125 BETA (2) =   .000   XO   31.100 31.800
                                              PHI
                                               .000   -.2695 -.2700
                                             320.000   -.2667 -.2437

ALPHA (2) = -.234 BETA (3) = 4.028   XO   31.100 31.800
                                              PHI
                                               .000   -.2839 -.2897
                                             320.000   -.2855 -.2667

ALPHA (3) = 3.867 BETA (1) =   .009   XO   31.100 31.800
                                              PHI
                                               .000   -.2793 -.2820
                                             320.000   -.2796 -.2533

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP U   (REUE48)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.148 BETA (1) = -.003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2022 -.2064
                                               320.000 -.1995 -.1881

ALPHA (2) = -.248 BETA (1) = -4.003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2022 -.2070
                                               320.000 -.2014 -.1879

ALPHA (2) = -.324 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                 .000   -.2020 -.2066
                                               320.000 -.2006 -.1853

ALPHA (2) = -.435 BETA (3) = 4.025   XO   31.100 31.800
                                               PHI
                                                 .000   -.2036 -.2088
                                               320.000 -.2004 -.1899

ALPHA (3) = 4.032 BETA (1) = -.006   XO   31.100 31.800
                                               PHI
                                                 .000   -.2070 -.2102
                                               320.000 -.2060 -.1841

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP U   (REUE49)   (04 FEB 75)

PARAMETRIC DATA

ELV-IB =	8.000	ELV-OB =	4.000
RUDDER =	.000	MACH =	.900
GIMBAL =	1.000		

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	976.0000	IN. XT
LREF =	1290.3000 IN.	YMRP =	.0000	IN. YT
BREF =	1290.3000 IN.	ZMRP =	400.0000	IN. ZT
SCALE =	.0200			

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.041 BETA (1) =   .000

XO	31.100	31.800
PHI		
.000	-.2288	-.2378
320.000	-.2337	-.2311

ALPHA (2) = -.198 BETA (1) = -4.003

XO	31.100	31.800
PHI		
.000	-.2322	-.2413
320.000	-.2280	-.2291

ALPHA (2) = -.162 BETA (2) =   .009

XO	31.100	31.800
PHI		
.000	-.2267	-.2310
320.000	-.2285	-.2164

ALPHA (2) = -.285 BETA (3) = 4.022

XO	31.100	31.800
PHI		
.000	-.2357	-.2412
320.000	-.2357	-.2321

ALPHA (3) = 3.828 BETA (1) = -.005

XO	31.100	31.800
PHI		
.000	-.2179	-.2250
320.000	-.2167	-.2103

ARC11-014IA19 OTS　　　SRB-OFF MPS-OFF BDFLAP U　　　　　　(REUE50)　(04 FEB 75)

REFERENCE DATA　　　　　　　　　　　　　　　　　　　　　　　　　　　　PARAMETRIC DATA

SREF	=	2690.0000 Sq.FT.	XMRP	=	976.0000 IN. XT
LREF	=	1290.3000 IN.	YMRP	=	.0000 IN. YT
BREF	=	1290.3000 IN.	ZMRP	=	400.0000 IN. ZT
SCALE	=	.0200			

ELV-IB =	8.000	ELV-OB =	4.000
RUDDER =	.000	MACH =	1.100
GIMBAL =	1.000		

SECTION (1)BODY FLAP UPPER　　　　　　　　DEPENDENT VARIABLE CP

ALPHA (1) = -4.017　BETA (1) =　.003
XO　　31.100　31.800
PHI
.000　　-.3537　-.3582
320.000　　-.3542　-.3372

ALPHA (2) =　-.162　BETA (1) = -4.000
XO　　31.100　31.800
PHI
.000　　-.3894　-.3981
320.000　　-.3867　-.3656

ALPHA (2) =　-.141　BETA (2) =　.012
XO　　31.100　31.800
PHI
.000　　-.3408　-.3477
320.000　　-.3416　-.3234

ALPHA (2) =　-.234　BETA (3) = 4.025
XO　　31.100　31.800
PHI
.000　　-.3757　-.3802
320.000　　-.3753　-.3603

ALPHA (3) = 3.879　BETA (1) =　.000
XO　　31.100　31.800
PHI
.000　　-.3863　-.3934
320.000　　-.3881　-.3657

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP U   (REUE51)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.008 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                  .000   -.2980 -.3005
                                               320.000   -.2998 -.2817

ALPHA (2) = -.138 BETA (1) = -4.003   XO   31.100 31.800
                                                PHI
                                                  .000   -.3198 -.3258
                                               320.000   -.3140 -.2945

ALPHA (2) = -.224 BETA (2) =   .009   XO   31.100 31.800
                                                PHI
                                                  .000   -.3049 -.3063
                                               320.000   -.3039 -.2858

ALPHA (2) = -.252 BETA (3) = 4.022   XO   31.100 31.800
                                                PHI
                                                  .000   -.3182 -.3246
                                               320.000   -.3163 -.3050

ALPHA (3) = 3.864 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                  .000   -.3336 -.3378
                                               320.000   -.3350 -.3151

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP U   (REUES2)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.990 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                 .000   -.2705 -.2783
                                               320.000 -.2666 -.2522

ALPHA (2) = -.190 BETA (1) = -4.003   XO   31.100 31.800
                                                PHI
                                                 .000   -.2811 -.2826
                                               320.000 -.2773 -.2551

ALPHA (2) = -.190 BETA (2) =   .009   XO   31.100 31.800
                                                PHI
                                                 .000   -.2688 -.2706
                                               320.000 -.2674 -.2474

ALPHA (2) = -.190 BETA (3) = 4.022   XO   31.100 31.800
                                                PHI
                                                 .000   -.2868 -.2874
                                               320.000 -.2863 -.2620

ALPHA (3) = 3.960 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                 .000   -.2750 -.2774
                                               320.000 -.2736 -.2497

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP U   (REUE53)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.179 BETA (1) = -.003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.2512 -.2612
                                                320.000   -.2543   -.2594

ALPHA (2) = -.359 BETA (1) = -3.997   XO   31.100 31.800
                                                 PHI
                                                   .000   -.2437 -.2556
                                                320.000   -.2459 -.2393

ALPHA (2) = -.360 BETA (2) =   .012   XO   31.100 31.800
                                                 PHI
                                                   .000   -.2162 -.2236
                                                320.000   -.2280 -.2124

ALPHA (2) = -.411 BETA (3) = 4.022   XO   31.100 31.800
                                                 PHI
                                                   .000   -.2498 -.2506
                                                320.000   -.2435 -.2401

ALPHA (3) = 3.936 BETA (1) = -.006   XO   31.100 31.800
                                                 PHI
                                                   .000   -.2191 -.2178
                                                320.000   -.2158 -.2080

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP U   (REUE54)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.140 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                   .000   -.3372 -.3370
                                                320.000   -.3376 -.3181

ALPHA (2) = -.369 BETA (1) = -4.003   XO   31.100 31.900
                                                PHI
                                                   .000   -.3630 -.3692
                                                320.000   -.3577 -.3365

ALPHA (2) = -.327 BETA (2) =   .006   XO   31.100 31.800
                                                PHI
                                                   .000   -.3231 -.3328
                                                320.000   -.3241 -.3109

ALPHA (2) = -.288 BETA (3) = 4.016   XO   31.100 31.800
                                                PHI
                                                   .000   -.3457 -.3497
                                                320.000   -.3459 -.3288

ALPHA (3) = 3.915 BETA (1) = -.003   XO   31.100 31.800
                                                PHI
                                                   .000   -.3619 -.3676
                                                320.000   -.3616 -.3398

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP U   (REUE55)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   0.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000   XO   31.100 31.800
                                                 PHI
                                                     .000   -.2555 -.2595
                                                 320.000   -.2556 -.2431

ALPHA (2) = -.369 BETA (1) = -4.000   XO   31.100 31.800
                                                 PHI
                                                     .000   -.2692 -.2732
                                                 320.000   -.2671 -.2509

ALPHA (2) = -.309 BETA (2) =   .012   XO   31.100 31.800
                                                 PHI
                                                     .000   -.2553 -.2607
                                                 320.000   -.2567 -.2409

ALPHA (2) = -.300 BETA (3) = 4.022   XO   31.100 31.800
                                                 PHI
                                                     .000   -.2686 -.2774
                                                 320.000   -.2646 -.2601

ALPHA (3) = 3.966 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                     .000   -.2850 -.2903
                                                 320.000   -.2856 -.2685

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP U   (REUE56)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.403
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.071 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                     .000   -.1989 -.2074
                                                 320.000   -.1990 -.1899

ALPHA (2) = -.294 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                     .000   -.2003 -.2055
                                                 320.000   -.2015 -.1879

ALPHA (2) = -.375 BETA (2) =   .009   XO   31.100 31.800
                                                PHI
                                                     .000   -.2077 -.2069
                                                 320.000   -.2078 -.1897

ALPHA (2) = -.423 BETA (3) = 4.028   XO   31.100 31.800
                                                PHI
                                                     .000   -.2038 -.2069
                                                 320.000   -.1983 -.1891

ALPHA (3) = 3.834 BETA (1) = -.003   XO   31.100 31.800
                                                PHI
                                                     .000   -.2062 -.2093
                                                 320.000   -.2081 -.1906

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+BDFLAP U   (REUE57)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
SREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.497 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                   .000   -.3378 -.3704
                                                320.000   -.3468 -.3711

ALPHA (2) = -.339 BETA (1) = -3.997   XO   31.100 31.800
                                                PHI
                                                   .000   -.3733 -.4063
                                                320.000   -.3818 -.4054

ALPHA (2) = -.465 BETA (2) =   .019   XO   31.100 31.800
                                                PHI
                                                   .000   -.3518 -.3853
                                                320.000   -.3508 -.3779

ALPHA (2) = -.435 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                   .000   -.3738 -.4131
                                                320.000   -.3708 -.4038

ALPHA (3) = 3.636 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                   .000   -.3668 -.4017
                                                320.000   -.3615 -.3908

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM BDFLAP U   (REUE58)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) = .000   XO   31.100 31.800
                                            PHI
                                             .000   -.2837 -.3030
                                          320.000   -.2820 -.2952

ALPHA (2) = -.348 BETA (1) = 4.028   XO   31.100 31.800
                                            PHI
                                             .000   -.3004 -.3207
                                          320.000   -.2983 -.3096

ARC11-014IA19 OTS+STRUT SRB-NOM NFS-OFF BDFLAP U   (REUE59)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) =   .012   XO   31.100 31.800
                                                PHI
                                                  .000   -.2599 -.2656
                                               320.000   -.2599 -.2627

ALPHA (2) = -.370 BETA (1) =   .012   XO   31.100 31.800
                                                PHI
                                                  .000   -.2538 -.2556
                                               320.000   -.2552 -.2551

ALPHA (2) = -.335 BETA (2) = 4.031   XO   31.100 31.800
                                                PHI
                                                  .000   -.2843 -.2896
                                               320.000   -.2831 -.2850

ARC11-014IA19 OTS+STRUT SRB-HI MPS-NOM BDFLAP U   (REVE60)   (04 FEB 75)

            REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER. =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)BODY FLAP UPPER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .012   XO   31.100 31.800
                                              PHI
                                                 .000   -.2918 -.3316
                                              320.000   -.3074 -.3384

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF01)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.999 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.2998 -.2821
                                             320.000   -.2649 -.2530

ALPHA (2) = -.210 BETA (1) = -4.006   XO   31.100 31.800
                                              PHI
                                                .000   -.3008 -.3055
                                             320.000   -.2653 -.2548

ALPHA (2) = -.338 BETA (2) =   .006   XO   31.100 31.800
                                              PHI
                                                .000   -.2820 -.2698
                                             320.000   -.2394 -.2303

ALPHA (2) = -.222 BETA (3) =   4.025   XO   31.100 31.800
                                              PHI
                                                .000   -.2917 -.2769
                                             320.000   -.2596 -.2475

ALPHA (3) = 3.948 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.2697 -.2461
                                             320.000   -.2261 -.2224

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF02)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.176 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                   .000   -.3596 -.3606
                                                320.000   -.3177 -.3258

ALPHA (2) = -.294 BETA (1) = -4.003   XO   31.100 31.800
                                                PHI
                                                   .000   -.3435 -.3408
                                                320.000   -.3343 -.3498

ALPHA (2) = -.258 BETA (2) =   .009   XO   31.100 31.800
                                                PHI
                                                   .000   -.3401 -.3439
                                                320.000   -.2938 -.3100

ALPHA (2) = -.225 BETA (3) = 4.028   XO   31.100 31.800
                                                PHI
                                                   .000   -.3506 -.3443
                                                320.000   -.3090 -.3269

ALPHA (3) = 4.026 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                   .000   -.3595 -.3652
                                                320.000   -.2993 -.3206

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF03)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.182 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                    .000   -.2798 -.2812
                                                320.000   -.2569 -.2644

ALPHA (2) = -.291 BETA (1) = -3.997   XO   31.100 31.800
                                                PHI
                                                    .000   -.2589 -.2627
                                                320.000   -.2614 -.2778

ALPHA (2) = -.177 BETA (2) =   .016   XO   31.100 31.800
                                                PHI
                                                    .000   -.2865 -.2908
                                                320.000   -.2475 -.2525

ALPHA (2) = -.368 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                    .000   -.2607 -.2459
                                                320.000   -.2393 -.2442

ALPHA (3) = 3.843 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                    .000   -.2844 -.2935
                                                320.000   -.2431 -.2483

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF04)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF = 976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRF = 400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .009   XO   31.100 31.800
                                               PHI
                                                 .000   -.2584 -.2622
                                              320.000   -.2500 -.2461

ALPHA (2) = -.204 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000   -.1851 -.1866
                                              320.000   -.2237 -.2470

ALPHA (2) = -.308 BETA (2) =   .016   XO   31.100 31.800
                                               PHI
                                                 .000   -.2361 -.2413
                                              320.000   -.2133 -.2210

ALPHA (2) = -.267 BETA (3) = 4.031   XO   31.100 31.800
                                               PHI
                                                 .000   -.1950 -.1910
                                              320.000   -.2117 -.2027

ALPHA (3) = 4.358 BETA (1) =   .012   XO   31.100 31.800
                                               PHI
                                                 .000   -.2001 -.2123
                                              320.000   -.1892 -.2031

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF05)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.119 BETA (1) = -.006   XO   31.100 31.800
                                               PHI
                                                  .000   -.3333 -.3215
                                               320.000   -.3208 -.3234

ALPHA (2) = -.308 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                  .000   -.3153 -.3390
                                               320.000   -.3472 -.3551

ALPHA (2) = -.264 BETA (2) =   .016   XO   31.100 31.800
                                               PHI
                                                  .000   -.3355 -.3130
                                               320.000   -.3028 -.3261

ALPHA (2) = -.348 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                  .000   -.3544 -.3480
                                               320.000   -.3262 -.3338

ALPHA (3) = 3.924 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                  .000   -.2983 -.2907
                                               320.000   -.2803 -.2924

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF06)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

    SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.074 BETA (1) =   .000   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3397 -.3442
                                                 320.000   -.3229 -.3508

ALPHA (2) = -.394 BETA (1) = -4.003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3123 -.3117
                                                 320.000   -.3201 -.3469

ALPHA (2) = -.404 BETA (2) =   .009   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3120 -.3195
                                                 320.000   -.2892 -.3290

ALPHA (2) = -.339 BETA (3) = 4.028   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3230 -.3065
                                                 320.000   -.2939 -.3224

ALPHA (3) = 3.984 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.3249 -.3369
                                                 320.000   -.2987 -.3321

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF07)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.131 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                  .000   -.2339 -.2336
                                                320.000 -.2265 -.2497

ALPHA (2) = -.300 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                  .000   -.1979 -.1994
                                                320.000 -.2133 -.2367

ALPHA (2) = -.411 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                  .000   -.2264 -.2296
                                                320.000 -.2090 -.2338

ALPHA (2) = -.430 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                  .000   -.2191 -.1978
                                                320.000 -.2100 -.2283

ALPHA (3) = 3.568 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                  .000   -.2332 -.2396
                                                320.000 -.2130 -.2324

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF07)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.131 BETA (1) =   .003   XO   31.100 31.800
                                                  PHI
                                                    .000   -.2339 -.2336
                                                 320.000   -.2265 -.2497

ALPHA (2) = -.300 BETA (1) = -4.000   XO   31.100 31.800
                                                  PHI
                                                    .000   -.1979 -.1994
                                                 320.000   -.2133 -.2367

ALPHA (2) = -.411 BETA (2) =   .012   XO   31.100 31.800
                                                  PHI
                                                    .000   -.2264 -.2296
                                                 320.000   -.2090 -.2338

ALPHA (2) = -.436 BETA (3) = 4.031   XO   31.100 31.800
                                                  PHI
                                                    .000   -.2191 -.1978
                                                 320.000   -.2100 -.2283

ALPHA (3) = 3.568 BETA (1) =   .003   XO   31.100 31.800
                                                  PHI
                                                    .000   -.2332 -.2396
                                                 320.000   -.2130 -.2324

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF08)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) =   .006   XO   31.100 31.800
                                               PHI
                                                 .000   -.1717 -.1751
                                               320.000 -.1708 -.1913

ALPHA (2) = -.468 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000   -.1327 -.1231
                                               320.000 -.1529 -.1717

ALPHA (2) = -.438 BETA (2) =   .016   XO   31.100 31.800
                                               PHI
                                                 .000   -.1530 -.1532
                                               320.000 -.1499 -.1735

ALPHA (2) = -.450 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                 .000   -.1501 -.1336
                                               320.000 -.1439 -.1670

ALPHA (3) = 4.014 BETA (1) =   .009   XO   31.100 31.800
                                               PHI
                                                 .000   -.1388 -.1401
                                               320.000 -.1337 -.1616

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM BDFLAP L   (REUF09)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.3219 -.3157
                                               320.000 -.3203 -.3363

ALPHA (2) = -.490 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000   -.2989 -.3367
                                               320.000 -.3383 -.3442

ALPHA (2) = -.518 BETA (2) = -.003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2700 -.2676
                                               320.000 -.2698 -.2825

ALPHA (2) = -.441 BETA (3) = 4.025   XO   31.100 31.800
                                               PHI
                                                 .000   -.2919 -.2893
                                               320.000 -.2910 -.2783

ALPHA (3) = 4.050 BETA (1) =   .006   XO   31.100 31.800
                                               PHI
                                                 .000   -.2706 -.2509
                                               320.000 -.2509 -.2699

ARC11-014TA19 OTS+STRUT SRB-LOW MPS-NOM BDFLAP L   (REUF10)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF   = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF   = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF   = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.976 BETA (1) = -.006   XO   31.100 31.800
                                             PHI
                                                .000   -.3590 -.3603
                                             320.000   -.3332 -.3641

ALPHA (2) = -.387 BETA (1) = -4.003   XO   31.100 31.800
                                             PHI
                                                .000   -.3325 -.3306
                                             320.000   -.3331 -.3654

ALPHA (2) = -.424 BETA (2) =   .009   XO   31.100 31.800
                                             PHI
                                                .000   -.3325 -.3428
                                             320.000   -.3045 -.3460

ALPHA (2) = -.384 BETA (3) = 4.028   XO   31.100 31.800
                                             PHI
                                                .000   -.3460 -.3282
                                             320.000   -.3098 -.3384

ALPHA (3) = 3.936 BETA (1) =   .000   XO   31.100 31.800
                                             PHI
                                                .000   -.3520 -.3716
                                             320.000   -.3133 -.3525

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM BDFLAP L   (REUF11)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.746 BETA (1) =   .006   XO   31.100 31.800
                                               PHI
                                                 .000 -.2546 -.2528
                                              320.000 -.2469 -.2679

ALPHA (2) = -.444 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000 -.2257 -.2241
                                              320.000 -.2380 -.2648

ALPHA (2) = -.402 BETA (2) =   .012   XO   31.100 31.800
                                               PHI
                                                 .000 -.2508 -.2637
                                              320.000 -.2315 -.2565

ALPHA (2) = -.324 BETA (3) = 4.034   XO   31.100 31.800
                                               PHI
                                                 .000 -.2264 -.2132
                                              320.000 -.2146 -.2293

ALPHA (3) = 3.552 BETA (1) =   .003   XO   31.100 31.900
                                               PHI
                                                 .000 -.2527 -.2640
                                              320.000 -.2275 -.2494

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM BDFLAP L   (REUF12)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                    .000   -.2052 -.2160
                                                320.000   -.2012 -.2188

ALPHA (2) = -.396 BETA (1) = -4.003   XO   31.100 31.800
                                                PHI
                                                    .000   -.1518 -.1495
                                                320.000   -.1883 -.2107

ALPHA (2) = -.378 BETA (2) =   .006   XO   31.100 31.800
                                                PHI
                                                    .000   -.1812 -.1889
                                                320.000   -.1744 -.1999

ALPHA (2) = -.318 BETA (3) = 4.025   XO   31.100 31.800
                                                PHI
                                                    .000   -.1617 -.1507
                                                320.000   -.1601 -.1769

ALPHA (3) = 4.008 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                    .000   -.1629 -.1620
                                                320.000   -.1527 -.1820

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF BDFLAP L   (REUF13)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   .IMBAL = 1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.119 BETA (1) = -.003   XO   31.100 31.800
                                                PHI
                                                 .000   -.3201 -.3094
                                              320.000   -.2812 -.2767

ALPHA (2) = -.390 BETA (1) = -3.997   XO   31.100 31.800
                                                PHI
                                                 .000   -.3157 -.3212
                                              320.000   -.2804 -.2726

ALPHA (2) = -.378 BETA (2) =   .016   XO   31.100 31.800
                                                PHI
                                                 .000   -.2939 -.2811
                                              320.000   -.2511 -.2410

ALPHA (2) = -.327 BETA (3) = 4.028   XO   31.100 31.800
                                                PHI
                                                 .000   -.3296 -.3058
                                              320.000   -.2996 -.2770

ALPHA (3) = 3.909 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                 .000   -.2862 -.2849
                                              320.000   -.2509 -.2464

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF BDFLAP L   (REUF14)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

  SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -5.142 BETA (1) = -.006   XO   31.100 31.800
                                               PHI
                                                   .000   -.3384 -.3401
                                                320.000   -.3041 -.3084

ALPHA (2) = -.321 BETA (1) = -4.003   XO   31.100 31.800
                                               PHI
                                                   .000   -.3101 -.3093
                                                320.000   -.3091 -.3196

ALPHA (2) = -.432 BETA (2) =   .016   XO   31.100 31.800
                                               PHI
                                                   .000   -.3109 -.3149
                                                320.000   -.2676 -.2853

ALPHA (2) = -.396 BETA (3) = 4.025   XO   31.100 31.800
                                               PHI
                                                   .000   -.3194 -.3101
                                                320.000   -.2794 -.2958

ALPHA (3) = 3.864 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                   .000   -.3234 -.3321
                                                320.000   -.2718 -.2945

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF BDFLAP L   (REUF15)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.115 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2356 -.2383
                                                 320.000   -.2143 -.2197

ALPHA (2) = -.390 BETA (1) = -4.000   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2049 -.2017
                                                 320.000   -.2088 -.2224

ALPHA (2) = -.363 BETA (2) =   .012   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2292 -.2366
                                                 320.000   -.1976 -.2043

ALPHA (2) = -.294 BETA (3) = 4.028   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2127 -.1960
                                                 320.000   -.1957 -.2050

ALPHA (3) = 3.834 BETA (1) =   .012   XO   31.100 31.800
                                                 PHI
                                                    .000   -.2362 -.2416
                                                 320.000   -.2012 -.2065

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF BDFLAP L   (REUF16)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.099 BETA (1) =   .012   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1900 -.1981
                                                 320.000   -.1800 -.1790

ALPHA (2) = -.399 BETA (1) = -4.000   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1416 -.1372
                                                 320.000   -.1685 -.1821

ALPHA (2) = -.291 BETA (2) = -.003   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1709 -.1795
                                                 320.000   -.1560 -.1672

ALPHA (2) = -.316 BETA (3) = 4.025   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1524 -.1397
                                                 320.000   -.1451 -.1566

ALPHA (3) = 3.861 BETA (1) = -.006   XO   31.100 31.800
                                                 PHI
                                                    .000   -.1558 -.1592
                                                 320.000   -.1405 -.1519

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI BDFLAP L   (REUF17)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.150 BETA (1) =   .009   XO   31.100 31.800
                                                PHI
                                                   .000 -.2899 -.2791
                                                320.000 -.2988 -.3074

ALPHA (2) = -.426 BETA (1) = -4.003   XO   31.100 31.800
                                                PHI
                                                   .000 -.3159 -.3437
                                                320.000 -.3489 -.3642

ALPHA (2) = -.447 BETA (2) =   .009   XO   31.100 31.800
                                                PHI
                                                   .000 -.3006 -.2868
                                                320.000 -.2884 -.3032

ALPHA (2) = -.435 BETA (3) = 4.028   XO   31.100 31.800
                                                PHI
                                                   .000 -.2891 -.2777
                                                320.000 -.2842 -.2736

ALPHA (3) = 3.930 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                   .000 -.3246 -.3070
                                                320.000 -.3142 -.3259

ARC11-014IA19 OTS+STRUT SRB-HI NPS-HI BDFLAP L   (REUF18)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 Sq.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.098 BETA (1) =   .000   XO   31.100 31.800
                                                  PHI
                                                     .000   -.2800 -.2823
                                                  320.000   -.2690 -.2967

ALPHA (2) = -.396 BETA (1) = -4.003   XO   31.100 31.800
                                                  PHI
                                                     .000   -.2734 -.2680
                                                  320.000   -.2776 -.3023

ALPHA (2) = -.438 BETA (2) =   .009   XO   31.100 31.800
                                                  PHI
                                                     .000   -.2620 -.2612
                                                  320.000   -.2459 -.2778

ALPHA (2) = -.573 BETA (3) = 4.028   XO   31.100 31.800
                                                  PHI
                                                     .000   -.2653 -.2523
                                                  320.000   -.2466 -.2686

ALPHA (3) = 3.915 BETA (1) =   .000   XO   31.100 31.800
                                                  PHI
                                                     .000   -.2777 -.2825
                                                  320.000   -.2520 -.2915

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI BDFLAP L   (REUF19)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 Sq.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.185 BETA (1) = -.009   XO   31.100 31.800
                                              PHI
                                                 .000   -.1773 -.1694
                                              320.000   -.1735 -.1943

ALPHA (2) = -.459 BETA (1) = -4.000   XO   31.100 31.800
                                              PHI
                                                 .000   -.1598 -.1516
                                              320.000   -.1711 -.1859

ALPHA (2) = -.438 BETA (2) = .012   XO   31.100 31.800
                                              PHI
                                                 .000   -.1652 -.1667
                                              320.000   -.1601 -.1857

ALPHA (2) = -.549 BETA (3) = 4.028   XO   31.100 31.800
                                              PHI
                                                 .000   -.1678 -.1582
                                              320.000   -.1636 -.1787

ALPHA (3) = 3.516 BETA (1) = .012   XO   31.100 31.800
                                              PHI
                                                 .000   -.1819 -.1924
                                              320.000   -.1714 -.1963

ARC11-014TA19 OTS+STRUT SRB-HI WFS-HI BDFLAP L   (REUF20)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .003   XO   31.100 31.800
                                              PHI
                                                 .000   -.1237 -.1298
                                              320.000   -.1264 -.1441

ALPHA (2) = -.489 BETA (1) = -4.003   XO   31.100 31.800
                                              PHI
                                                 .000   -.0961 -.0913
                                              320.000   -.1103 -.1199

ALPHA (2) = -.432 BETA (2) =   .009   XO   31.100 31.800
                                              PHI
                                                 .000   -.1049 -.1026
                                              320.000   -.1023 -.1296

ALPHA (2) = -.466 BETA (3) = 4.025   XO   31.100 31.800
                                              PHI
                                                 .000   -.1120 -.0930
                                              320.000   -.1049 -.1283

ALPHA (3) = 3.657 BETA (1) =   .009   XO   31.100 31.800
                                              PHI
                                                 .000   -.0932 -.0881
                                              320.000   -.0905 -.1194

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF21)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.200 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                   .000   -.2617 -.2620
                                                320.000   -.2526 -.2498

ALPHA (2) = -.180 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                   .000   -.1818 -.1837
                                                320.000   -.2197 -.2427

ALPHA (2) = -.291 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                   .000   -.2269 -.2337
                                                320.000   -.2103 -.2224

ALPHA (2) = -.306 BETA (3) = 4.928   XO   31.100 31.800
                                                PHI
                                                   .000   -.2000 -.1901
                                                320.000   -.2156 -.2068

ALPHA (3) = 3.969 BETA (1) =   .006   XO   31.100 31.800
                                                PHI
                                                   .000   -.2222 -.2332
                                                320.000   -.1949 -.2137

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF22)   (04 FE9 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .006   XO   31.100 31.800
                                               PHI
                                                 .000   -.1692 -.1781
                                              320.000   -.1688 -.1883

ALPHA (2) = -.349 BETA (1) = -3.997   XO   31.100 31.800
                                               PHI
                                                 .000   -.1228 -.1248
                                              320.000   -.1424 -.1901

ALPHA (2) = -.366 BETA (2) =   .012   XO   31.100 31.800
                                               PHI
                                                 .000   -.1496 -.1501
                                              320.000   -.1422 -.1713

ALPHA (2) = -.522 BETA (3) = 4.031   XO   31.100 31.800
                                               PHI
                                                 .000   -.1449 -.1285
                                              320.000   -.1347 -.1618

ALPHA (3) = 3.942 BETA (1) =   .012   XO   31.100 31.800
                                               PHI
                                                 .000   -.1382 -.1422
                                              320.000   -.1326 -.1617

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF23)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 Sq.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.047 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.3266 -.3109
                                              320.000 -.2837 -.2775

ALPHA (2) = -.276 BETA (1) = -4.003   XO   31.100 31.800
                                              PHI
                                                .000   -.3383 -.3454
                                              320.000 -.2999 -.2917

ALPHA (2) = -.237 BETA (2) =   .009   XO   31.100 31.800
                                              PHI
                                                .000   -.2689 -.2679
                                              320.000 -.2278 -.2287

ALPHA (2) = -.195 BETA (3) = 4.028   XO   31.100 31.800
                                              PHI
                                                .000   -.2817 -.2666
                                              320.000 -.2542 -.2435

ALPHA (3) = 3.855 BETA (1) =   .003   XO   31.100 31.800
                                              PHI
                                                .000   -.2848 -.2807
                                              320.000 -.2458 -.2444

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF24)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 Sq.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .009   XO   31.100 31.800
                                               PHI
                                                   .000   -.3764 -.3690
                                               320.000   -.3320 -.3317

ALPHA (2) = -.279 BETA (1) = -4.003   XO   31.100 31.800
                                               PHI
                                                   .000   -.3491 -.3456
                                               320.000   -.3440 -.3478

ALPHA (2) = -.246 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                   .000   -.3573 -.3546
                                               320.000   -.3118 -.3201

ALPHA (2) = -.273 BETA (3) = 4.025   XO   31.100 31.800
                                               PHI
                                                   .000   -.3654 -.3484
                                               320.000   -.3340 -.3440

ALPHA (3) = 3.894 BETA (1) = -.003   XO   31.100 31.800
                                               PHI
                                                   .000   -.3629 -.3685
                                               320.000   -.3225 -.3329

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF25)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.975 BETA (1) =   .003   XO   31.100 31.800
                                                   PHI
                                                      .000   -.2841 -.2727
                                                   320.000   -.2552 -.2607

ALPHA (2) = -.293 BETA (1) = -4.000   XO   31.100 31.800
                                                   PHI
                                                      .000   -.2604 -.2614
                                                   320.000   -.2553 -.2640

ALPHA (2) = -.289 BETA (2) =   .012   XO   31.100 31.800
                                                   PHI
                                                      .000   -.2817 -.2779
                                                   320.000   -.2351 -.2412

ALPHA (2) = -.189 BETA (3) = 4.031   XO   31.100 31.800
                                                   PHI
                                                      .000   -.2799 -.2560
                                                   320.000   -.2527 -.2521

ALPHA (3) = 4.005 BETA (1) =   .003   XO   31.100 31.800
                                                   PHI
                                                      .000   -.2962 -.3027
                                                   320.000   -.2454 -.2527

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF26)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.909 BETA (1) =   .009   XO   31.100 31.800
                                                PHI
                                                   .000   -.2669 -.2643
                                                320.000   -.2527 -.2398

ALPHA (2) = -.243 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                   .000   -.1855 -.1858
                                                320.000   -.2192 -.2333

ALPHA (2) = -.237 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                   .000   -.2303 -.2251
                                                320.000   -.2172 -.2201

ALPHA (2) = -.234 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                   .000   -.2071 -.1980
                                                320.000   -.2208 -.2142

ALPHA (3) = 4.047 BETA (1) =   .006   XO   31.100 31.800
                                                PHI
                                                   .000   -.2281 -.2312
                                                320.000   -.2106 -.2129

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF27)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.125 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                  .000   -.3496 -.3285
                                               320.000   -.3320 -.3395

ALPHA (2) = -.396 BETA (1) = -4.003   XO   31.100 31.800
                                                PHI
                                                  .000   -.3287 -.3616
                                               320.000   -.3519 -.3727

ALPHA (2) = -.408 BETA (2) =   .009   XO   31.100 31.800
                                                PHI
                                                  .000   -.3263 -.2986
                                               320.000   -.2894 -.3136

ALPHA (2) = -.336 BETA (3) = 4.025   XO   31.100 31.800
                                                PHI
                                                  .000   -.3419 -.3325
                                               320.000   -.3078 -.3060

ALPHA (3) = 3.792 BETA (1) = -.003   XO   31.100 31.800
                                                PHI
                                                  .000   -.3022 -.2815
                                               320.000   -.2749 -.2944

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF28)   (04 FEB 75)

PARAMETRIC DATA

REFERENCE DATA

						ELV-IB =	.000	ELV-OB =	.000
SREF	=	2690.0000 SQ.FT.	XMRP	=	976.0000 IN. XT	RUDDER =	.000	MACH =	1.100
LREF	=	1290.3000 IN.	YMRP	=	.0000 IN. YT	GIMBAL =	1.000		
BREF	=	1290.3000 IN.	ZMRP	=	400.0000 IN. ZT				
SCALE	=	.0200							

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3508 -.3422
                                                 320.000   -.3279 -.3471

ALPHA (2) = -.465 BETA (1) = -4.003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3194 -.3126
                                                 320.000   -.3219 -.3395

ALPHA (2) = -.447 BETA (2) =   .012   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3201 -.3228
                                                 320.000   -.2987 -.3255

ALPHA (2) = -.405 BETA (3) = 4.031   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3285 -.3156
                                                 320.000   -.3095 -.3312

ALPHA (3) = 3.819 BETA (1) =   .009   XO   31.100 31.800
                                                 PHI
                                                   .000   -.3312 -.3317
                                                 320.000   -.3068 -.3382

ARC11-014YA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF29)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) =   .006   XO   31.100 31.800
                                                 PHI
                                                    .000 -.2237 -.2096
                                                 320.000 -.2101 -.2250

ALPHA (2) = -.375 BETA (1) = -3.997   XO   31.100 31.800
                                                 PHI
                                                    .000 -.2024 -.1972
                                                 320.000 -.1987 -.2110

ALPHA (2) = -.408 BETA (2) =   .012   XO   31.100 31.800
                                                 PHI
                                                    .000 -.2098 -.2028
                                                 320.000 -.1924 -.2140

ALPHA (2) = -.381 BETA (3) = 4.031   XO   31.100 31.800
                                                 PHI
                                                    .000 -.2229 -.1980
                                                 320.000 -.1940 -.2107

ALPHA (3) = 3.843 BETA (1) =   .003   XO   31.100 31.800
                                                 PHI
                                                    .000 -.2205 -.2215
                                                 320.000 -.1980 -.2189

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF30)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.224 BETA (1) =   .006   XO   31.100 31.800
                                                PHI
                                                  .000   -.1630 -.1644
                                               320.000   -.1652 -.1751

ALPHA (2) = -.444 BETA (1) = -3.997   XO   31.100 31.800
                                                PHI
                                                  .000   -.1264 -.1198
                                               320.000   -.1364 -.1471

ALPHA (2) = -.405 BETA (2) =   .016   XO   31.100 31.800
                                                PHI
                                                  .000   -.1426 -.1341
                                               320.000   -.1392 -.1567

ALPHA (2) = -.360 BETA (3) = 4.031   XO   31.100 31.800
                                                PHI
                                                  .000   -.1473 -.1257
                                               320.000   -.1375 -.1486

ALPHA (3) = 3.819 BETA (1) =   .009   XO   31.100 31.800
                                                PHI
                                                  .000   -.1351 -.1274
                                               320.000   -.1260 -.1519

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF31)   (04 FEB 75)

REFERENCE DATA

PARAMETRIC DATA

ELV-IB =	.000	ELV-OB = .000
RUDDER =	.000	MACH = .900
GIMBAL =	2.000	

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP = .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT
SCALE = .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.020 BETA (1) =   .006

```
     XO      31.100  31.800
     PHI
       .000  -.2933  -.2768
    320.000  -.2537  -.2482
```

ALPHA (2) = -.288 BETA (1) = -4.003

```
     XO      31.100  31.800
     PHI
       .000  -.3209  -.3354
    320.000  -.2854  -.2734
```

ALPHA (2) = -.279 BETA (2) =   .009

```
     XO      31.100  31.800
     PHI
       .000  -.2662  -.2541
    320.000  -.2270  -.2166
```

ALPHA (2) = -.264 BETA (3) = 4.031

```
     XO      31.100  31.800
     PHI
       .000  -.2977  -.2745
    320.000  -.2702  -.2545
```

ALPHA (3) = 3.978 BETA (1) =   .000

```
     XO      31.100  31.800
     PHI
       .000  -.2785  -.2681
    320.000  -.2369  -.2312
```

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF32)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.900 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                  .000 -.3529 -.3482
                                               320.000 -.3145 -.3128

ALPHA (2) = -.255 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                  .000 -.3205 -.3143
                                               320.000 -.3093 -.3140

ALPHA (2) = -.213 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                  .000 -.3124 -.3097
                                               320.000 -.2748 -.2787

ALPHA (2) = -.219 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                  .000 -.3261 -.3222
                                               320.000 -.3009 -.3083

ALPHA (3) = 3.981 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                  .000 -.3283 -.3282
                                               320.000 -.2854 -.2927

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   (REUF33)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

   SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.044 BETA (1) =   .003   XO   31.100 31.800
                                                  PHI
                                                     .000   -.2775 -.2628
                                                  320.000   -.2497 -.2525

ALPHA (2) = -.198 BETA (1) = -4.000   XO   31.100 31.800
                                                  PHI
                                                     .000   -.2547 -.2520
                                                  320.000   -.2494 -.2587

ALPHA (2) = -.162 BETA (2) =   .009   XO   31.100 31.800
                                                  PHI
                                                     .000   -.2805 -.2824
                                                  320.000   -.2364 -.2397

ALPHA (2) = -.210 BETA (3) = 4.031   XO   31.100 31.800
                                                  PHI
                                                     .000   -.2724 -.2509
                                                  320.000   -.2462 -.2468

ALPHA (3) = 3.846 BETA (1) =   .003   XO   31.100 31.800
                                                  PHI
                                                     .000   -.2992 -.2924
                                                  320.000   -.2375 -.2429

ARC11-014TA19 OTS+STRUT SRB-OFF MPS-OFF BDFLAP L   .(REUF34)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.2662 -.2613
                                              320.000   -.2592 -.2374

ALPHA (2) = -.231 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000   -.1861 -.1866
                                              320.000   -.2175 -.2337

ALPHA (2) = -.231 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                 .000   -.2286 -.2253
                                              320.000   -.2168 -.2159

ALPHA (2) = -.210 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                 .000   -.2069 -.1936
                                              320.000   -.2262 -.2192

ALPHA (3) = 3.930 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2256 -.2303
                                              320.000   -.2092 -.2104

ARC11-014IA19 OTS+STRUT SRB-NOM HPS-NOM BDFLAP L   (REUF35)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.308 BETA (1) =   .009   XO   31.100 31.800
                                                PHI
                                                  .000   -.3703 -.3657
                                               320.000   -.3582 -.3742

ALPHA (2) = -.390 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                  .000   -.3607 -.4102
                                               320.000   -.3715 -.3859

ALPHA (2) = -.384 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                  .000   -.3360 -.3169
                                               320.000   -.3161 -.3252

ALPHA (2) = -.345 BETA (3) = 4.025   XO   31.100 31.800
                                                PHI
                                                  .000   -.3756 -.3596
                                               320.000   -.3596 -.3358

ALPHA (3) = 3.903 BETA (1) =   .006   XO   31.100 31.800
                                                PHI
                                                  .000   -.3472 -.3284
                                               320.000   -.3143 -.3359

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF36)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.008 BETA (1) =   .003   XO   31.100 31.800
                                                  PHI
                                                      .000   -.3757 -.3731
                                                  320.000   -.3442 -.3582

ALPHA (2) = -.342 BETA (1) = -4.000   XO   31.100 31.800
                                                  PHI
                                                      .000   -.3344 -.3294
                                                  320.000   -.3340 -.3515

ALPHA (2) = -.318 BETA (2) =   .012   XO   31.100 31.800
                                                  PHI
                                                      .000   -.3321 -.3300
                                                  320.000   -.3011 -.3281

ALPHA (2) = -.417 BETA (3) =   4.031   XO   31.100 31.800
                                                  PHI
                                                      .000   -.3389 -.3229
                                                  320.000   -.3155 -.3323

ALPHA (3) = 3.717 BETA (1) =   .000   XO   31.100 31.800
                                                  PHI
                                                      .000   -.3613 -.3600
                                                  320.000   -.3332 -.3625

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-NOM BDFLAP L   (REUF37)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.149 BETA (1) =   .006   XO   31.100 31.800
                                              PHI
                                                .000   -.2576   -.2432
                                             320.000   -.2415   -.2530

ALPHA (2) = -.414 BETA (1) = -4.003   XO   31.100 31.800
                                              PHI
                                                .000   -.2180   -.2161
                                             320.000   -.2185   -.2342

ALPHA (2) =. -.459 BETA (2) =   .009   XO   31.100 31.800
                                              PHI
                                                .000   -.2484   -.2537
                                             320.000   -.2242   -.2425

ALPHA (2) = -.468 BETA (3) = 4.028   XO   31.100 31.800
                                              PHI
                                                .000   -.2316   -.2109
                                             320.000   -.2115   -.2240

ALPHA (3) = 3.864 BETA (1) =   .003   XO   31.100 31.800
                                              PHI
                                                .000   -.2626   -.2676
                                             320.000   -.2312   -.2459

ARC11-014IA19 OTS+STRUT SRB-NOM NFS-NOM BDFLAP·L   (REUF38)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .003   XO   31.100 31.800
                                            PHI
                                               .000   -.2007 -.2033
                                            320.000   -.1987 -.2015

ALPHA (2) = -.387 BETA (1) = -4.000   XO   31.100 31.800
                                            PHI
                                               .000   -.1389 -.1370
                                            320.000   -.1554 -.1814

ALPHA (2) = -.518 BETA (2) =   .009   XO   31.100 31.800
                                            PHI
                                               .000   -.1734 -.1633
                                            320.000   -.1674 -.1822

ALPHA (2) = -.354 BETA (3) = 4.031   XO   31.100 31.800
                                            PHI
                                               .000   -.1595 -.1485
                                            320.000   -.1576 -.1677

ALPHA (3) = 3.939 BETA (1) =   .000   XO   31.100 31.800
                                            PHI
                                               .000   -.1520 -.1469
                                            320.000   -.1441 -.1634

ARC11-0141A19 OTS   SRB-OFF MPS-OFF BDFLAP L   (REUF39)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -8.139 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.3267 -.3021
                                               320.000   .0000 -.2627

ALPHA (2) = -4.032 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.2794 -.2655
                                               320.000   .0000 -.2250

ALPHA (3) = -.228 BETA (1) = -4.003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2854 -.2756
                                               320.000   .0000 -.2760

ALPHA (3) = -.249 BETA (2) =   .012   XO   31.100 31.800
                                               PHI
                                                 .000   -.2737 -.2653
                                               320.000   .0000 -.2273

ALPHA (3) = -.261 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                 .000   -.2959 -.2718
                                               320.000   .0000 -.2877

ALPHA (4) = 4.032 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2774 -.2706
                                               320.000   .0000 -.2216

ALPHA (5) = 7.920 BETA (1) =   .003   XO   31.100 31.900
                                               PHI
                                                 .000   -.2936 -.2790
                                               320.000   .0000 -.2466

ARC11-014IA19 OTS   SRB-OFF NPS-OFF BDFLAP L   (REUF40)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -7.992 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.3516 -.3398
                                              320.000   .0000 -.3124

ALPHA (2) = -4.080 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.3468 -.3385
                                              320.000   .0000 -.3026

ALPHA (3) = -.225 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000   -.3460 -.3439
                                              320.000   .0000 -.3520

ALPHA (3) = -.159 BETA (2) =   .012   XO   31.100 31.800
                                               PHI
                                                 .000   -.3403 -.3405
                                              320.000   .0000 -.3019

ALPHA (3) = -.312 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                 .000   -.3334 -.3255
                                              320.000   .0000 -.3073

ALPHA (4) = 3.885 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.3645 -.3704
                                              320.000   .0000 -.3293

ALPHA (5) = 8.073 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.3979 -.3975
                                              320.000   .0000 -.3717

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP L   (REUF41)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   = 1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL = 1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -8.232 BETA (1) = -.006   XO   31.100 31.800
                                             PHI
                                               .000   -.2940 -.2761
                                             320.000   .0000 -.2756

ALPHA (2) = -4.098 BETA (1) = -.006   XO   31.100 31.800
                                             PHI
                                               .000   -.2707 -.2549
                                             320.000   .0000 -.2454

ALPHA (3) = -.243 BETA (1) = -4.000   XO   31.100 31.800
                                             PHI
                                               .000   -.2883 -.2913
                                             320.000   .0000 -.2862

ALPHA (3) = -.171 BETA (2) = .012   XO   31.100 31.800
                                             PHI
                                               .000   -.2745 -.2748
                                             320.000   .0000 -.2376

ALPHA (3) = -.871 BETA (3) = 4.025   XO   31.100 31.800
                                             PHI
                                               .000   -.3127 -.3018
                                             320.000   .0000 -.2585

ALPHA (4) = 7.860 BETA (1) = -.003   XO   31.100 31.800
                                             PHI
                                               .000   -.3180 -.3271
                                             320.000   .0000 -.2714

ARC11-014IA19 OTS   SRB-OFF NFS-OFF BDFLAP L   (REUF42)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.059 BETA (1) =   .000   XO   31.100 31.800
                                            PHI
                                              .000   -.2585 -.2568
                                           320.000   .0000 -.2331

ALPHA (2) = -.183 BETA (1) = -3.997   XO   31.100 31.800
                                            PHI
                                              .000   -.2100 -.1923
                                           320.000   .0000 -.2304

ALPHA (2) = -.195 BETA (2) =   .012   XO   31.100 31.800
                                            PHI
                                              .000   -.2252 -.2283
                                           320.000   .0000 -.2087

ALPHA (2) =   .027 BETA (3) = 4.028   XO   31.100 31.800
                                            PHI
                                              .000   -.2128 -.2130
                                           320.000   .0000 -.2151

ALPHA (3) = 3.924 BETA (1) =   .003   XO   31.100 31.800
                                            PHI
                                              .000   -.2186 -.2269
                                           320.000   .0000 -.1967

ALPHA (4) = 7.809 BETA (1) =   .003   XO   31.100 31.800
                                            PHI
                                              .000   -.2241 -.2411
                                           320.000   .0000 -.1866

ARC11-014IA19 OTS   SRB-NOM WFS-OFF BDFLAP L   (REUF43)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -8.133 .BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                   .000   -.3734 -.3600
                                                320.000   .0000 -.3228

ALPHA (2) = -4.002 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                   .000   -.2855 -.2696
                                                320.000   .0000 -.2336

ALPHA (3) = -.342 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                   .000   -.3054 -.3037
                                                320.000   .0000 -.2971

ALPHA (3) = -.357 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                   .000   -.2969 -.2827
                                                320.000   .0000 -.2381

ALPHA (3) = -.288 BETA (3) = 4.022   XO   31.100 31.800
                                                PHI
                                                   .000   -.3099 -.2944
                                                320.000   .0000 -.3014

ALPHA (4) = 3.924 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                   .000   -.2811 -.2630
                                                320.000   .0000 -.2316

ALPHA (5) = 7.962 BETA (1) =   .000   XO   31.100 31.900
                                                PHI
                                                   .000   -.2653 -.2569
                                                320.000   .0000 -.2302

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP L   (REUF44)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -8.104 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                   .000   -.3226 -.3113
                                                320.000   .0000 -.2870

ALPHA (2) = -4.030 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                   .000   -.3272 -.3243
                                                320.000   .0000 -.2858

ALPHA (3) = -.363 BETA (1) = -4.003   XO   31.100 31.800
                                                PHI
                                                   .000   -.3308 -.3307
                                                320.000   .0000 -.3411

ALPHA (3) = -.363 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                   .000   -.3251 -.3224
                                                320.000   .0000 -.2905

ALPHA (3) = -.393 BETA (3) = 4.022   XO   31.100 31.800
                                                PHI
                                                   .000   -.3186 -.3091
                                                320.000   .0000 -.2919

ALPHA (4) = 3.888 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                   .000   -.3572 -.3615
                                                320.000   .0000 -.3266

ALPHA (5) = 7.977 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                   .000   -.3789 -.3861
                                                320.000   .0000 -.3479

ARC11-014IA19 OTS   SRB-N04 MPS-OFF BDFLAP L   (REUF45)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   . DEPENDENT VARIABLE CP

ALPHA (1) = -8.244 BETA (1) = -.009   XO   31.100 31.800
                                              PHI
                                                .000 -.2459 -.2286
                                             320.000   .0000 -.2186

ALPHA (2) = -3.938 BETA (1) = -.009   XO   31.100 31.800
                                              PHI
                                                .000 -.2329 -.2237
                                             320.000   .0000 -.2125

ALPHA (3) = -.309   BETA (1) = -4.000   XO   31.100 31.800
                                              PHI
                                                .000 -.2302 -.2146
                                             320.000   .0000 -.2402

ALPHA (3) = -.360   BETA (2) = .000   XO   31.100 31.800
                                              PHI
                                                .000 -.2343 -.2272
                                             320.000   .0000 -.2031

ALPHA (3) = -.405   BETA (3) = 4.025   XO   31.100 31.800
                                              PHI
                                                .000 -.2454 -.2310
                                             320.000   .0000 -.2093

ALPHA (4) = 3.873   BETA (1) = .000   XO   . 31.100 31.600
                                              PHI
                                                .000 -.2376 -.2449
                                             320.000   .0000 -.2037

ALPHA (5) = 7.989   BETA (1) = .000   XO   31.100 31.800
                                              PHI
                                                .000 -.2598 -.2679
                                             320.000   .0000 -.2232

ARC11-014IA19 OTS   SRB-NOM MFS-OFF BDFLAP L   (REUF46)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   = 1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL = 1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -8.175 BETA (1) =   .003   XO   31.100 31.800
                                             PHI
                                                .000   -.2027 -.2971
                                             320.000   .0000 -.1742

ALPHA (2) = -4.992 BETA (1) =   .003   XO   31.100 31.800
                                             PHI
                                                .000   -.1804 -.1809
                                             320.000   .0000 -.1648

ALPHA (3) = -.348 BETA (1) = -4.000   XO   31.100 31.800
                                             PHI
                                                .000   -.1530 -.1487
                                             320.000   .0000 -.1783

ALPHA (3) = -.369 BETA (2) =   .016   XO   31.100 31.800
                                             PHI
                                                .000   -.1690 -.1742
                                             320.000   .0000 -.1543

ALPHA (3) = -.360 BETA (3) = 4.028   XO   31.100 31.800
                                             PHI
                                                .000   -.1690 -.1603
                                             320.000   .0000 -.1534

ALPHA (4) = 3.900 BETA (1) =   .006   XO   31.100 31.800
                                             PHI
                                                .000   -.1624 -.1648
                                             320.000   .0000 -.1442

ALPHA (5) = 7.653 BETA (1) =   .006   XO   31.100 31.800
                                             PHI
                                                .000   -.1720 -.1761
                                             320.000   .0000 -.1377

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP L   (REUF47)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.050 BETA (1) = -.003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2629 -.2665
                                              320.000   .0000 -.2435

ALPHA (2) = -.150 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000   -.2065 -.2006
                                              320.000   .0000 -.2298

ALPHA (2) = -.129 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                 .000   -.2270 -.2383
                                              320.000   .0000 -.2177

ALPHA (2) = -.234 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                 .000   -.2126 -.2156
                                              320.000   .0000 -.2453

ALPHA (3) = 3.867 BETA (1) =   .009   XO   31.100 31.800
                                               PHI
                                                 .000   -.2200 -.2285
                                              320.000   .0000 -.2029

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP L   (REUF48)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.143 BETA (1) = -.003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.1822 -.1950
                                                320.000   .0000 -.1723

ALPHA (2) = -.243 BETA (1) = -4.003   XO   31.100 31.800
                                                 PHI
                                                   .000   -.1453 -.1283
                                                320.000   .0000 -.1779

ALPHA (2) = -.324 BETA (2) =   .009   XO   31.100 31.800
                                                 PHI
                                                   .000   -.1717 -.1806
                                                320.000   .0000 -.1664

ALPHA (2) = -.435 BETA (3) = 4.025   XO   31.100 31.800
                                                 PHI
                                                   .000   -.1604 -.1557
                                                320.000   .0000 -.1617

ALPHA (3) = 4.032 BETA (1) = -.006   XO   31.100 31.800
                                                 PHI
                                                   .000   -.1604 -.1712
                                                320.000   .0000 -.1526

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP L   (REUF49)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.041 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                  .000   -.2967 -.2724
                                               320.000   .0000 -.2464

ALPHA (2) = -.198 BETA (1) = -4.003   XO   31.100 31.800
                                               PHI
                                                  .000   -.2804 -.2774
                                               320.000   .0000 -.2788

ALPHA (2) = -.162 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                  .000   -.2831 -.2686
                                               320.000   .0000 -.2339

ALPHA (2) = -.285 BETA (3) = 4.022   XO   31.100 31.800
                                               PHI
                                                  .000   -.2807 -.2610
                                               320.000   .0000 -.2638

ALPHA (3) = 3.828 BETA (1) = -.003   XO   31.100 31.800
                                               PHI
                                                  .000   -.2763 -.2588
                                               320.000   .0000 -.2300

ARC11-014IA19 OTS   SRB-OFF NFS-OFF BDFLAP L   (REUF50)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                   .000   -.3482 -.3453
                                                320.000   .0000 -.3121

ALPHA (2) = -.162 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                   .000   -.3484 -.3455
                                                320.000   .0000 -.3547

ALPHA (2) = -.141 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                   .000   -.3253 -.3334
                                                320.000   .0000 -.2942

ALPHA (2) = -.234 BETA (3) = 4.025   XO   31.100 31.800
                                                PHI
                                                   .000   -.3444 -.3401
                                                320.000   .0000 -.3199

ALPHA (3) = 3.879 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                   .000   -.3594 -.3687
                                                320.000   .0000 -.3251

ARC11-014IA19 OTS   SRB-OFF MPS-OFF BDFLAP L   (REUF51)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.008 BETA (1) =   .000   XO   31.100 31.800
                                             PHI
                                               .000   -.2655 -.2648
                                             320.000   .0000 -.2513

ALPHA (2) = -.138 BETA (1) = -4.003   XO   31.100 31.800
                                             PHI
                                               .000   -.2740 -.2794
                                             320.000   .0000 -.2762

ALPHA (2) = -.225 BETA (2) =   .009   XO   31.100 31.800
                                             PHI
                                               .000   -.2788 -.2766
                                             320.000   .0000 -.2475

ALPHA (2) = -.252 BETA (3) = 4.022   XO   31.100 31.800
                                             PHI
                                               .000   -.2863 -.2757
                                             320.000   .0000 -.2552

ALPHA (3) = 3.864 BETA (1) =   .000   XO   31.100 31.800
                                             PHI
                                               .000   -.2832 -.2928
                                             320.000   .0000 -.2485

ARC11-014IA19 OTS   SRB-OFF HFS-OFF BDFLAP L   (REUF52)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.990 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                .000   -.2544 -.2599
                                               320.000   .0000 -.2407

ALPHA (2) = -.195 BETA (1) = -4.003   XO   31.100 31.800
                                               PHI
                                                .000   -.2018 -.1987
                                               320.000   .0000 -.2298

ALPHA (2) = -.198 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                .000   -.2274 -.2404
                                               320.000   .0000 -.2184

ALPHA (2) = -.186 BETA (3) = 4.022   XO   31.100 31.800
                                               PHI
                                                .000   -.2109 -.2092
                                               320.000   .0000 -.2375

ALPHA (3) = 3.960 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                .000   -.2097 -.2269
                                               320.000   .0000 -.1991

ARC11-014IA19 OTS   SRB-NON MPS-OFF BDFLAP L   (REUF53)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.179 BETA (1) = -.003   XO   31.100 31.800
                                               PHI
                                                  .000   -.3243 -.3053
                                               320.000   .0000 -.2707

ALPHA (2) = -.339 BETA (1) = -3.997   XO   31.100 31.800
                                               PHI
                                                  .000   -.2875 -.2803
                                               320.000   .0000 -.2851

ALPHA (2) = -.360 BETA (2) =   .012   XO   31.100 31.800
                                               PHI
                                                  .000.   -.2782 -.2691
                                               320.000   .0000 -.2396

ALPHA (2) = -.411 BETA (3) = 4.022   XO   31.100 31.800
                                               PHI
                                                  .000   -.2878 -.2757
                                               320.000   .0000 -.2884

ALPHA (3) = 3.936 BETA (1) = -.006   XO   31.100 31.800
                                               PHI
                                                  .000   -.2731 -.2564
                                               320.000   .0000 -.2275

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP L   (REUF54)   (04 FEB 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   1.100
GIMBAL =   1.000

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.149 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.3230 -.3274
                                               320.000   .0000 -.2908

ALPHA (2) = -.315 BETA (1) = -4.003   XO   31.100 31.800
                                               PHI
                                                 .000   -.3165 -.3207
                                               320.000   .0000 -.3282

ALPHA (2) = -.327 BETA (2) =   .006   XO   31.100 31.800
                                               PHI
                                                 .000   -.3057 -.3153
                                               320.000   .0000 -.2787

ALPHA (2) = -.288 BETA (3) = 4.016   XO   31.100 31.800
                                               PHI
                                                 .000   -.3100 -.3064
                                               320.000   .0000 -.2873

ALPHA (3) = 3.915 BETA (1) = -.003   XO   31.100 31.800
                                               PHI
                                                 .000   -.3273 -.3346
                                               320.000   .0000 -.2989

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP L   (REUF55)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000   XO   31.100 31.800
                                                PHI
                                                 .000   -.2323 -.2282
                                                320.000   .0000 -.2166

ALPHA (2) = -.369 BETA (1) = -4.000   XO   31.100 31.800
                                                PHI
                                                 .000   -.2290 -.2309
                                                320.000   .0000 -.2416

ALPHA (2) = -.309 BETA (2) =   .012   XO   31.100 31.800
                                                PHI
                                                 .000   -.2293 -.2303
                                                320.000   .0000 -.2099

ALPHA (2) = -.309 BETA (3) = 4.022   XO   31.100 31.800
                                                PHI
                                                 .000   -.2485 -.2290
                                                320.000   .0000 -.2152

ALPHA (3) = 3.966 BETA (1) =   .003   XO   31.100 31.800
                                                PHI
                                                 .000   -.2395 -.2506
                                                320.000   .0000 -.2121

ARC11-014IA19 OTS   SRB-NOM MPS-OFF BDFLAP L   (REUF56)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000 ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000 MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.071 BETA (1) =   .000   XO   31.100 31.800
                                               PHI
                                                 .000   -.1838 -.1908
                                               320.000   .0000 -.1752

ALPHA (2) = -.294 BETA (1) = -4.000   XO   31.100 31.800
                                               PHI
                                                 .000   -.1387 -.1285
                                               320.000   .0000 -.1765

ALPHA (2) = -.375 BETA (2) =   .009   XO   31.100 31.800
                                               PHI
                                                 .000   -.1744 -.1817
                                               320.000   .0000 -.1672

ALPHA (2) = -.423 BETA (3) = 4.028   XO   31.100 31.800
                                               PHI
                                                 .000   -.1648 -.1551
                                               320.000   .0000 -.1609

ALPHA (3) = 3.834 BETA (1) = -.003   XO   31.100 31.800
                                               PHI
                                                 .000   -.1585 -.1726
                                               320.000   .0000 -.1492

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+BDFLAP L   (REUF57)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.497 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2294 -.2256
                                               320.000   -.2219 -.2414

ALPHA (2) = -.339 BETA (1) = -3.997   XO   31.100 31.800
                                               PHI
                                                 .000   -.1998 -.1981
                                               320.000   -.2143 -.2356

ALPHA (2) = -.465 BETA (2) =   .019   XO   31.100 31.800
                                               PHI
                                                 .000   -.2281 -.2328
                                               320.000   -.2113 -.2382

ALPHA (2) = -.435 BETA (3) = 4.031   XO   31.100 31.800
                                               PHI
                                                 .000   -.2071 -.1943
                                               320.000   -.2025 -.2146

ALPHA (3) = 3.636 BETA (1) =   .003   XO   31.100 31.800
                                               PHI
                                                 .000   -.2310 -.2479
                                               320.000   -.2120 -.2357

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM BDFLAP L   (REUF58)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .000   XO   31.100 31.800
                                              PHI
                                                .000   -.2051 -.2120
                                             320.000   -.1992 -.2193

ALPHA (2) = -.342 BETA (1) = 4.028   XO   31.100 31.800
                                              PHI
                                                .000   -.1652 -.1536
                                             320.000   -.1661 -.1806

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF BDFLAP L   (REUF39)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) =   .012   XO   31.100 31.800
                                             PHI
                                              .000   -.2375 -.2372
                                           320.000   -.2141 -.2207

ALPHA (2) = -.375 BETA (1) =   .012   XO   31.100 31.800
                                             PHI
                                              .000   -.2274 -.2317
                                           320.000   -.1949 -.2032

ALPHA (2) = -.333 BETA (2) = 4.031   XO   31.100 31.800
                                             PHI
                                              .000   -.2168 -.2003
                                           320.000   -.2001 -.2075

ARC11-014IA19 OTS+STRUT SRB-HI MPS-NOM BDFLAP L   (REUF60)   (04 FEB 75)

                REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)BODY FLAP LOWER   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .012   XO   31.100 31.800
                                                PHI
                                                 .000   -.1887 -.1819
                                              320.000   -.1847 -.2043

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG01)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

     SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2179
                                                 370.000   -.2185
                                                 371.000   -.2098
                                                 372.000   -.2161
                                                 373.000   -.2076
                                                 374.000   -.2294
                                                 375.000   -.2296
                                                 376.000   -.2310
                                                 377.000   -.2276
                                                 378.000   -.2274
                                                 379.000   -.2336
                                                 380.000   -.2275
                                                 381.000   -.2355

ALPHA (2) = -.216 BETA (1) = -4.006   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2631
                                                 370.000   -.2394
                                                 371.000   -.2273
                                                 372.000   -.2477
                                                 373.000   -.2311
                                                 374.000   -.2548
                                                 375.000   -.2488
                                                 376.000   -.2508
                                                 377.000   -.2433
                                                 378.000   -.2433
                                                 379.000   -.2582
                                                 380.000   -.2596
                                                 381.000   -.2578

ALPHA (2) = -.336 BETA (2) =   .006   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2083
                                                 370.000   -.2071
                                                 371.000   -.1990
                                                 372.000   -.2095
                                                 373.000   -.1992
                                                 374.000   -.2155
                                                 375.000   -.2063
                                                 376.000   -.2139
                                                 377.000   -.2099

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG01)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.336 BETA (2) =   .006   BASE   1.000
                                                TAP NO
                                                378.000   -.2142
                                                379.000   -.2224
                                                380.000   -.2241
                                                381.000   -.2225

ALPHA (2) = -.222 BETA (3) = 4.025   BASE   1.000
                                                TAP NO
                                                369.000   -.2444
                                                370.000   -.2183
                                                371.000   -.2196
                                                372.000   -.2339
                                                373.000   -.2297
                                                374.000   -.2323
                                                375.000   -.2301
                                                376.000   -.2388
                                                377.000   -.2373
                                                378.000   -.2393
                                                379.000   -.2371
                                                380.000   -.2440
                                                381.000   -.2466

ALPHA (3) = 3.948 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                369.000   -.1997
                                                370.000   -.1979
                                                371.000   -.1827
                                                372.000   -.1961
                                                373.000   -.1957
                                                374.000   -.2086
                                                375.000   -.2088
                                                376.000   -.2068
                                                377.000   -.2023
                                                378.000   -.2058
                                                379.000   -.2171
                                                380.000   -.2153
                                                381.000   -.2108

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG02)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.178 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3657
                                                 370.000   -.3479
                                                 371.000   -.3557
                                                 372.000   -.3609
                                                 373.000   -.3352
                                                 374.000   -.3616
                                                 375.000   -.3591
                                                 376.000   -.3569
                                                 377.000   -.3567
                                                 378.000   -.3535
                                                 379.000   -.3619
                                                 380.000   -.3594
                                                 381.000   -.3650

ALPHA (2) = -.294 BETA (1) = -4.008   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4165
                                                 370.000   -.4119
                                                 371.000   -.4011
                                                 372.000   -.3940
                                                 373.000   -.3992
                                                 374.000   -.4056
                                                 375.000   -.4075
                                                 376.000   -.4066
                                                 377.000   -.4066
                                                 378.000   -.4063
                                                 379.000   -.4159
                                                 380.000   -.4125
                                                 381.000   -.4109

ALPHA (2) = -.252 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3626
                                                 370.000   -.3444
                                                 371.000   -.3498
                                                 372.000   -.3562
                                                 373.000   -.3279
                                                 374.000   -.3599
                                                 375.000   -.3553
                                                 376.000   -.3545
                                                 377.000   -.3559

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG02)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CF

ALPHA (2) = -.252 BETA (2) =   .009   BASE   1.000
                                             TAP NO
                                             378.000   -.3488
                                             379.000   -.3632
                                             380.000   -.3607
                                             381.000   -.3610

ALPHA (2) = -.225 BETA (3) = 4.028   BASE   1.000
                                             TAP NO
                                             369.000   -.4177
                                             370.000   -.3974
                                             371.000   -.4124
                                             372.000   -.4080
                                             373.000   -.3999
                                             374.000   -.4084
                                             375.000   -.4026
                                             376.000   -.4126
                                             377.000   -.4123
                                             378.000   -.4138
                                             379.000   -.4134
                                             380.000   -.4156
                                             381.000   -.4188

ALPHA (3) = 4.028 BETA (1) =   .000   BASE   1.000
                                             TAP NO
                                             369.000   -.3882
                                             370.000   -.3703
                                             371.000   -.3747
                                             372.000   -.3793
                                             373.000   -.3508
                                             374.000   -.3838
                                             375.000   -.3806
                                             376.000   -.3920
                                             377.000   -.3786
                                             378.000   -.3760
                                             379.000   -.3972
                                             380.000   -.3863
                                             381.000   -.3564

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REU003)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.182 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2717
                                                 370.000   -.3043
                                                 371.000   -.3073
                                                 372.000   -.2935
                                                 373.000   -.2752
                                                 374.000   -.3027
                                                 375.000   -.2987
                                                 376.000   -.2994
                                                 377.000   -.2973
                                                 378.000   -.2959
                                                 379.000   -.3075
                                                 380.000   -.3050
                                                 381.000   -.3110

ALPHA (2) = -.291 BETA (1) = -3.997   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3381
                                                 370.000   -.3472
                                                 371.000   -.3464
                                                 372.000   -.3155
                                                 373.000   -.3179
                                                 374.000   -.3370
                                                 375.000   -.3349
                                                 376.000   -.3384
                                                 377.000   -.3392
                                                 378.000   -.3344
                                                 379.000   -.3473
                                                 380.000   -.3441
                                                 381.000   -.3473

ALPHA (2) = -.177 BETA (2) =   .016   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2916
                                                 370.000   -.3070
                                                 371.000   -.3108
                                                 372.000   -.3019
                                                 373.000   -.2755
                                                 374.000   -.3055
                                                 375.000   -.3014
                                                 376.000   -.3035
                                                 377.000   -.3028

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG03)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.177 BETA (2) =   .016   BASE   1.000
                                              TAP NO
                                              378.000   -.2973
                                              379.000   -.3095
                                              380.000   -.3081
                                              381.000   -.3101

ALPHA (2) = -.368 BETA (3) = 4.031   BASE   1.000
                                              TAP NO
                                              369.000   -.3268
                                              370.000   -.3404
                                              371.000   -.3490
                                              372.000   -.3299
                                              373.000   -.3119
                                              374.000   -.3330
                                              375.000   -.3325
                                              376.000   -.3360
                                              377.000   -.3367
                                              378.000   -.3416
                                              379.000   -.3479
                                              380.000   -.3468
                                              381.000   -.3486

ALPHA (3) = 3.843 BETA (1) =   .003   BASE   1.000
                                              TAP NO
                                              369.000   -.3175
                                              370.000   -.3334
                                              371.000   -.3363
                                              372.000   -.3232
                                              373.000   -.3004
                                              374.000   -.3304
                                              375.000   -.3282
                                              376.000   -.3296
                                              377.000   -.3272
                                              378.000   -.3231
                                              379.000   -.3391
                                              380.000   -.3355
                                              381.000   -.3372

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG04)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.900 BETA (1) =   .009   BASE   1.000
                                              TAP NO
                                              369.000   -.2836
                                              370.000   -.2831
                                              371.000   -.2827
                                              372.000   -.2700
                                              373.000   -.2571
                                              374.000   -.2821
                                              375.000   -.2821
                                              376.000   -.2804
                                              377.000   -.2794
                                              378.000   -.2748
                                              379.000   -.2866
                                              380.000   -.2807
                                              381.000   -.2866

ALPHA (2) = -.204 BETA (1) = -4.000   BASE   1.000
                                              TAP NO
                                              369.000   -.2978
                                              370.000   -.2981
                                              371.000   -.2958
                                              372.000   -.2610
                                              373.000   -.2742
                                              374.000   -.2833
                                              375.000   -.2883
                                              376.000   -.2898
                                              377.000   -.2904
                                              378.000   -.2875
                                              379.000   -.2952
                                              380.000   -.2934
                                              381.000   -.2954

ALPHA (2) = -.306 BETA (2) =   .016   BASE   1.000
                                              TAP NO
                                              369.000   -.2630
                                              370.000   -.2790
                                              371.000   -.2782
                                              372.000   -.2568
                                              373.000   -.2440
                                              374.000   -.2728
                                              375.000   -.2727
                                              376.000   -.2730
                                              377.000   -.2710

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG04)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.306 BETA (2) =   .016   BASE   1.000
                                                TAP NO
                                                378.000   -.2630
                                                379.000   -.2775
                                                380.000   -.2734
                                                381.000   -.2758

ALPHA (2) = -.267 BETA (3) = 4.031   BASE   1.000
                                                TAP NO
                                                369.000   -.2853
                                                370.000   -.2919
                                                371.000   -.2952
                                                372.000   -.2730
                                                373.000   -.2592
                                                374.000   -.2836
                                                375.000   -.2852
                                                376.000   -.2864
                                                377.000   -.2839
                                                378.000   -.2813
                                                379.000   -.2944
                                                380.000   -.2882
                                                381.000   -.2904

ALPHA (3) = 4.392 BETA (1) =   .012   BASE   1.000
                                                TAP NO
                                                369.000   -.2751
                                                370.000   -.2848
                                                371.000   -.2793
                                                372.000   -.2641
                                                373.000   -.2517
                                                374.000   -.2767
                                                375.000   -.2804
                                                376.000   -.2781
                                                377.000   -.2759
                                                378.000   -.2707
                                                379.000   -.2845
                                                380.000   -.2821
                                                381.000   -.2836

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG05)   (04 FEB 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   .900
GIMBAL =   1.000

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.118   BETA (1) = -.006   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4617
                                                 370.000   -.4667
                                                 371.000   -.4782
                                                 372.000   -.4846
                                                 373.000   -.4997
                                                 374.000   -.4222
                                                 375.000   -.5106
                                                 376.000   -.3859
                                                 377.000   -.4935
                                                 378.000   -.4448
                                                 379.000   -.3328
                                                 380.000   -.3130
                                                 381.000   -.3796

ALPHA (2) = -.306   BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4858
                                                 370.000   -.5073
                                                 371.000   -.4923
                                                 372.000   -.5201
                                                 373.000   -.5289
                                                 374.000   -.4711
                                                 375.000   -.5366
                                                 376.000   -.4139
                                                 377.000   -.5122
                                                 378.000   -.4908
                                                 379.000   -.3776
                                                 380.000   -.3592
                                                 381.000   -.4575

ALPHA (2) = -.264   BETA (2) =   .016   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4647
                                                 370.000   -.4705
                                                 371.000   -.4709
                                                 372.000   -.4807
                                                 373.000   -.5089
                                                 374.000   -.4104
                                                 375.000   -.5009
                                                 376.000   -.3734
                                                 377.000   -.4657

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUGOS)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.264 BETA (2) =   .016   BASE   1.000
                                              TAP NO
                                              378.000   -.4375
                                              379.000   -.3419
                                              380.000   -.2999
                                              381.000   -.3788

ALPHA (2) = -.348 BETA (3) = 4.028   BASE   1.000
                                              TAP NO
                                              369.000   -.4572
                                              370.000   -.4628
                                              371.000   -.4903
                                              372.000   -.4687
                                              373.000   -.5091
                                              374.000   -.4343
                                              375.000   -.4911
                                              376.000   -.3832
                                              377.000   -.4846
                                              378.000   -.4466
                                              379.000   -.3660
                                              380.000   -.3234
                                              381.000   -.4099

ALPHA (3) = 3.924 BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              369.000   -.4486
                                              370.000   -.4657
                                              371.000   -.4692
                                              372.000   -.4714
                                              373.000   -.4770
                                              374.000   -.3957
                                              375.000   -.4686
                                              376.000   -.3513
                                              377.000   -.4228
                                              378.000   -.4060
                                              379.000   -.3335
                                              380.000   -.2998
                                              381.000   -.3470

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG06)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.074 BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              369.000   -.4822
                                              370.000   -.5025
                                              371.000   -.5185
                                              372.000   -.5099
                                              373.000   -.5202
                                              374.000   -.4695
                                              375.000   -.5197
                                              376.000   -.4337
                                              377.000   -.5079
                                              378.000   -.4865
                                              379.000   -.4137
                                              380.000   -.3969
                                              381.000   -.4338

ALPHA (2) = -.396 BETA (1) = -4.003   BASE   1.000
                                              TAP NO
                                              369.000   -.5557
                                              370.000   -.5341
                                              371.000   -.5699
                                              372.000   -.5429
                                              373.000   -.5676
                                              374.000   -.5248
                                              375.000   -.5569
                                              376.000   -.4740
                                              377.000   -.5604
                                              378.000   -.5347
                                              379.000   -.4819
                                              380.000   -.4329
                                              381.000   -.4933

ALPHA (2) = -.408 BETA (2) =   .009   BASE   1.000
                                              TAP NO
                                              369.000   -.4821
                                              370.000   -.5017
                                              371.000   -.5079
                                              372.000   -.4935
                                              373.000   -.5105
                                              374.000   -.4765
                                              375.000   -.5213
                                              376.000   -.4209
                                              377.000   -.5039

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG06)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.408 BETA (2) =   .009   BASE   1.000
                                            TAP NO
                                            378.000   -.4802
                                            379.000   -.4099
                                            380.000   -.3911
                                            381.000   -.4305

ALPHA (2) = -.334 BETA (3) = 4.028   BASE   1.000
                                            TAP NO
                                            369.000   -.5279
                                            370.000   -.5507
                                            371.000   -.5503
                                            372.000   -.5544
                                            373.000   -.5526
                                            374.000   -.5176
                                            375.000   -.5578
                                            376.000   -.4542
                                            377.000   -.5533
                                            378.000   -.5366
                                            379.000   -.4725
                                            380.000   -.4276
                                            381.000   -.4887

ALPHA (3) = 3.984 BETA (1) =   .003   BASE   1.000
                                            TAP NO
                                            369.000   -.5147
                                            370.000   -.5320
                                            371.000   -.5378
                                            372.000   -.5224
                                            373.000   -.5400
                                            374.000   -.5097
                                            375.000   -.5515
                                            376.000   -.4458
                                            377.000   -.5259
                                            378.000   -.4998
                                            379.000   -.4438
                                            380.000   -.4079
                                            381.000   -.4481

ARC11-014IA19 OTS+STRUT SRB-NOM HFS-NOM ORB BASE   (REU007)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.131 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3420
                                                 370.000   -.3985
                                                 371.000   -.4061
                                                 372.000   -.4023
                                                 373.000   -.4118
                                                 374.000   -.3640
                                                 375.000   -.4147
                                                 376.000   -.3363
                                                 377.000   -.3977
                                                 378.000   -.3672
                                                 379.000   -.3042
                                                 380.000   -.3037
                                                 381.000   -.3213

ALPHA (2) = -.300 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3935
                                                 370.000   -.4050
                                                 371.000   -.4271
                                                 372.000   -.4049
                                                 373.000   -.4257
                                                 374.000   -.3847
                                                 375.000   -.4161
                                                 376.000   -.3473
                                                 377.000   -.4211
                                                 378.000   -.3917
                                                 379.000   -.3479
                                                 380.000   -.3210
                                                 381.000   -.3485

ALPHA (2) = -.411 BETA (2) =   .012   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3518
                                                 370.000   -.3926
                                                 371.000   -.3969
                                                 372.000   -.3950
                                                 373.000   -.4014
                                                 374.000   -.3611
                                                 375.000   -.4032
                                                 376.000   -.3231
                                                 377.000   -.3968

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG07)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.411 BETA (2) = .012

	BASE	1.000
TAP NO		
378.000	-.3657	
379.000	-.3111	
380.000	-.2993	
391.000	-.3212	

ALPHA (2) = -.436 BETA (3) = 4.031

	BASE	1.000
TAP NO		
369.000	-.3775	
370.000	-.4243	
371.000	-.4079	
372.000	-.4278	
373.000	-.4122	
374.000	-.3816	
375.000	-.4259	
376.000	-.3367	
377.000	-.4071	
378.000	-.3815	
379.000	-.3464	
380.000	-.3067	
391.000	-.3386	

ALPHA (3) = 3.582 BETA (1) = .003

	BASE	1.000
TAP NO		
369.000	-.3722	
370.000	-.4047	
371.000	-.4075	
372.000	-.4021	
373.000	-.4103	
374.000	-.3777	
375.000	-.4187	
376.000	-.3295	
377.000	-.4055	
378.000	-.3818	
379.000	-.3349	
380.000	-.3091	
381.000	-.3380	

ARC11-014IA19 OTS+STRUT SRB-NOM HPS-NOM ORB BASE   (REUG08)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.01? BETA (1) =   .006   BASE   1.000
                                                TAP NO
                                                369.000   -.2353
                                                370.000   -.2958
                                                371.000   -.2995
                                                372.000   -.2934
                                                373.000   -.3011
                                                374.000   -.2664
                                                375.000   -.3076
                                                376.000   -.2395
                                                377.000   -.2951
                                                378.000   -.2729
                                                379.000   -.2330
                                                380.000   -.2119
                                                381.000   -.2330

ALPHA (2) = -.486 BETA (1) = -4.000   BASE   1.000
                                                TAP NO
                                                369.000   -.3008
                                                370.000   -.2936
                                                371.000   -.3191
                                                372.000   -.2990
                                                373.000   -.3199
                                                374.000   -.2805
                                                375.000   -.3113
                                                376.000   -.2509
                                                377.000   -.3124
                                                378.000   -.2868
                                                379.000   -.2588
                                                380.000   -.2395
                                                381.000   -.2494

ALPHA (2) = -.438 BETA (2) =   .016   BASE   1.000
                                                TAP NO
                                                369.000   -.2661
                                                370.000   -.2925
                                                371.000   -.2958
                                                372.000   -.2939
                                                373.000   -.3007
                                                374.000   -.2642
                                                375.000   -.2995
                                                376.000   -.2368
                                                377.000   -.2936

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG08)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.438 BETA (2) =   .016   BASE   1.000
                                              TAP NO
                                              378.000   -.2662
                                              379.000   -.2350
                                              380.000   -.2217
                                              381.000   -.2374

ALPHA (2) = -.450 BETA (3) = 4.028   BASE   1.000
                                              TAP NO
                                              369.000   -.2842
                                              370.000   -.3160
                                              371.000   -.2913
                                              372.000   -.3182
                                              373.000   -.2980
                                              374.000   -.2830
                                              375.000   -.3163
                                              376.000   -.2461
                                              377.000   -.2988
                                              378.000   -.2659
                                              379.000   -.2514
                                              380.000   -.2271
                                              381.000   -.2452

ALPHA (3) = 4.014 BETA (1) =   .009   BASE   1.000
                                              TAP NO
                                              369.000   -.2782
                                              370.000   -.2951
                                              371.000   -.2976
                                              372.000   -.2959
                                              373.000   -.2997
                                              374.000   -.2736
                                              375.000   -.3025
                                              376.000   -.2313
                                              377.000   -.2899
                                              378.000   -.2688
                                              379.000   -.2425
                                              380.000   -.2185
                                              381.000   -.2451

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NON ORB BASE   (REU009)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.193 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4992
                                                 370.000   -.5066
                                                 371.000   -.5193
                                                 372.000   -.5098
                                                 373.000   -.5213
                                                 374.000   -.4462
                                                 375.000   -.5378
                                                 376.000   -.4159
                                                 377.000   -.5255
                                                 378.000   -.4697
                                                 379.000   -.3437
                                                 380.000   -.3371
                                                 381.000   -.3963

ALPHA (2) = -.438 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4993
                                                 370.000   -.5163
                                                 371.000   -.5060
                                                 372.000   -.5193
                                                 373.000   -.5517
                                                 374.000   -.4758
                                                 375.000   -.5576
                                                 376.000   -.4315
                                                 377.000   -.5434
                                                 378.000   -.5015
                                                 379.000   -.3692
                                                 380.000   -.3675
                                                 381.000   -.4754

ALPHA (2) = -.525 BETA (2) = -.003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.5006
                                                 370.000   -.4970
                                                 371.000   -.5050
                                                 372.000   -.5000
                                                 373.000   -.5323
                                                 374.000   -.4409
                                                 375.000   -.5200
                                                 376.000   -.3923
                                                 377.000   -.4861

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ORB BASE   (REUG09)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.525 BETA (2) = -.003   BASE   1.000
                                              TAP NO
                                              378.000   -.4542
                                              379.000   -.3376
                                              380.000   -.3219
                                              381.000   -.3751

ALPHA (2) = -.448 BETA (3) = 4.025   BASE   1.000
                                              TAP NO
                                              369.000   -.5162
                                              370.000   -.5140
                                              371.000   -.5239
                                              372.000   -.5093
                                              373.000   -.5361
                                              374.000   -.4728
                                              375.000   -.5432
                                              376.000   -.4110
                                              377.000   -.5175
                                              378.000   -.4769
                                              379.000   -.4084
                                              380.000   -.3431
                                              381.000   -.4084

ALPHA (3) = 4.050 BETA (1) =   .006   BASE   1.000
                                              TAP NO
                                              369.000   -.4644
                                              370.000   -.4749
                                              371.000   -.4788
                                              372.000   -.4707
                                              373.000   -.4930
                                              374.000   -.4313
                                              375.000   -.5078
                                              376.000   -.3757
                                              377.000   -.4705
                                              378.000   -.4347
                                              379.000   -.3234
                                              380.000   -.3092
                                              381.000   -.3508

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.978 BETA (1) = -.006   BASE   1.000
                                               TAP NO
                                               369.000   -.4948
                                               370.000   -.5174
                                               371.000   -.5321
                                               372.000   -.5164
                                               373.000   -.5342
                                               374.000   -.4865
                                               375.000   -.5303
                                               376.000   -.4478
                                               377.000   -.5255
                                               378.000   -.4967
                                               379.000   -.4292
                                               380.000   -.4239
                                               381.000   -.4545

ALPHA (2) = -.387 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               369.000   -.5703
                                               370.000   -.5482
                                               371.000   -.5868
                                               372.000   -.5593
                                               373.000   -.5827
                                               374.000   -.5444
                                               375.000   -.5687
                                               376.000   -.4914
                                               377.000   -.5780
                                               378.000   -.5505
                                               379.000   -.5036
                                               380.000   -.4529
                                               381.000   -.5149

ALPHA (2) = -.429 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               369.000   -.4941
                                               370.000   -.5121
                                               371.000   -.5200
                                               372.000   -.5051
                                               373.000   -.5237
                                               374.000   -.4920
                                               375.000   -.5300
                                               376.000   -.4406
                                               377.000   -.5181

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ORB BASE   (REUG10)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.429 BETA (2) =   .009   BASE   1.000
                                             TAP NO
                                             378.000   -.4926
                                             379.000   -.4316
                                             380.000   -.4169
                                             381.000   -.4525

ALPHA (2) = -.384 BETA (3) = 4.028   BASE   1.000
                                             TAP NO
                                             369.000   -.5349
                                             370.000   -.5560
                                             371.000   -.5553
                                             372.000   -.5595
                                             373.000   -.5587
                                             374.000   -.5195
                                             375.000   -.5629
                                             376.000   -.4641
                                             377.000   -.5580
                                             378.000   -.5431
                                             379.000   -.4857
                                             380.000   -.4494
                                             381.000   -.5026

ALPHA (3) = 3.930 BETA (1) =   .000   BASE   1.000
                                             TAP NO
                                             369.000   -.5239
                                             370.000   -.5324
                                             371.000   -.5387
                                             372.000   -.5249
                                             373.000   -.5418
                                             374.000   -.5198
                                             375.000   -.5507
                                             376.000   -.4609
                                             377.000   -.5369
                                             378.000   -.5160
                                             379.000   -.4667
                                             380.000   -.4324
                                             381.000   -.4699

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ORB BASE   (REUG11)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.740 BETA (1) =   .006   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3337
                                                 370.000   -.4128
                                                 371.000   -.4198
                                                 372.000   -.4172
                                                 373.000   -.4244
                                                 374.000   -.3810
                                                 375.000   -.4217
                                                 376.000   -.3533
                                                 377.000   -.4122
                                                 378.000   -.3843
                                                 379.000   -.3248
                                                 380.000   -.3310
                                                 381.000   -.3415

ALPHA (2) = -.444 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3954
                                                 370.000   -.4239
                                                 371.000   -.4388
                                                 372.000   -.4269
                                                 373.000   -.4369
                                                 374.000   -.4065
                                                 375.000   -.4332
                                                 376.000   -.3658
                                                 377.000   -.4324
                                                 378.000   -.4094
                                                 379.000   -.3713
                                                 380.000   -.3383
                                                 381.000   -.3682

ALPHA (2) = -.402 BETA (2) =   .012   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3547
                                                 370.000   -.4140
                                                 371.000   -.4140
                                                 372.000   -.4125
                                                 373.000   -.4197
                                                 374.000   -.3819
                                                 375.000   -.4209
                                                 376.000   -.3470
                                                 377.000   -.0034

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ARC11-014IA19 OTS+STRUT SRB-LOW MFS-NON ORB BASE   (REUG11)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.402 BETA (2) = .012   BASE   1.000
                                              TAP NO
                                              378.000   -.3858
                                              379.000   -.3356
                                              380.000   -.3227
                                              381.000   -.3485

ALPHA (2) = -.324 BETA (3) = 4.034   BASE   1.000
                                              TAP NO
                                              369.000   -.3764
                                              370.000   -.4288
                                              371.000   -.4135
                                              372.000   -.4317
                                              373.000   -.4215
                                              374.000   -.3964
                                              375.000   -.4302
                                              376.000   -.3499
                                              377.000   -.4156
                                              378.000   -.3930
                                              379.000   -.3641
                                              380.000   -.3262
                                              381.000   -.3581

ALPHA (3) = 3.552 BETA (1) = .003   BASE   1.000
                                              TAP NO
                                              369.000   -.3687
                                              370.000   -.4181
                                              371.000   -.4232
                                              372.000   -.4145
                                              373.000   -.4203
                                              374.000   -.3927
                                              375.000   -.4266
                                              376.000   -.3399
                                              377.000   -.4117
                                              378.000   -.3920
                                              379.000   -.3529
                                              380.000   -.3285
                                              381.000   -.3542

ARC11-014IA19 OTS+STRUT SRB-LOW MFS-NOM ORB BASE   (REUG12)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                369.000   -.2783
                                                370.000   -.3120
                                                371.000   -.3155
                                                372.000   -.3126
                                                373.000   -.3196
                                                374.000   -.2895
                                                375.000   -.3189
                                                376.000   -.2587
                                                377.000   -.3118
                                                378.000   -.2920
                                                379.000   -.2695
                                                380.000   -.2432
                                                381.000   -.2642

ALPHA (2) = -.396 BETA (1) = -4.003   BASE   1.000
                                                TAP NO
                                                369.000   -.3171
                                                370.000   -.3125
                                                371.000   -.3336
                                                372.000   -.3205
                                                373.000   -.3321
                                                374.000   -.3044
                                                375.000   -.3203
                                                376.000   -.2737
                                                377.000   -.3390
                                                378.000   -.3087
                                                379.000   -.2976
                                                380.000   -.2635
                                                381.000   -.2807

ALPHA (2) = -.378 BETA (2) =   .006   BASE   1.000
                                                TAP NO
                                                369.000   -.2831
                                                370.000   -.3091
                                                371.000   -.3111
                                                372.000   -.3063
                                                373.000   -.3129
                                                374.000   -.2819
                                                375.000   -.3127
                                                376.000   -.2562
                                                377.000   -.3076

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ORB BASE   (REUG12)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.370 BETA (2) =   .006   BASE   1.000
                                               TAP NO
                                               378.000   -.2876
                                               379.000   -.2611
                                               380.000   -.2492
                                               381.000   -.2641

ALPHA (2) = -.310 BETA (3) = 4.025   BASE   1.000
                                               TAP NO
                                               369.000   -.2997
                                               370.000   -.3291
                                               371.000   -.3110
                                               372.000   -.3288
                                               373.000   -.3166
                                               374.000   -.3012
                                               375.000   -.3257
                                               376.000   -.2622
                                               377.000   -.3085
                                               378.000   -.2926
                                               379.000   -.2813
                                               380.000   -.2542
                                               381.000   -.2777

ALPHA (3) = 4.005 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.2971
                                               370.000   -.3107
                                               371.000   -.3143
                                               372.000   -.3046
                                               373.000   -.3126
                                               374.000   -.2897
                                               375.000   -.3151
                                               376.000   -.2487
                                               377.000   -.3081
                                               378.000   -.2920
                                               379.000   -.2691
                                               380.000   -.2427
                                               381.000   -.2708

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ORB BASE   (REUG13)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

   SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.119 BETA (1) = -.003   BASE   1.000
                                                  TAP NO
                                                  369.000   -.2157
                                                  370.000   -.2165
                                                  371.000   -.2146
                                                  372.000   -.2233
                                                  373.000   -.2154
                                                  374.000   -.2368
                                                  375.000   -.2378
                                                  376.000   -.2366
                                                  377.000   -.2294
                                                  378.000   -.2351
                                                  379.000   -.2437
                                                  380.000   -.2489
                                                  381.000   -.2518

ALPHA (2) = -.398 BETA (1) = -3.997   BASE   1.000
                                                  TAP NO
                                                  369.000   -.2616
                                                  370.000   -.2342
                                                  371.000   -.2259
                                                  372.000   -.2490
                                                  373.000   -.2332
                                                  374.000   -.2580
                                                  375.000   -.2561
                                                  376.000   -.2551
                                                  377.000   -.2409
                                                  378.000   -.2479
                                                  379.000   -.2628
                                                  380.000   -.2574
                                                  381.000   -.2503

ALPHA (2) = -.378 BETA (2) =   .016   BASE   1.000
                                                  TAP NO
                                                  369.000   -.2139
                                                  370.000   -.2172
                                                  371.000   -.2059
                                                  372.000   -.2139
                                                  373.000   -.2125
                                                  374.000   -.2258
                                                  375.000   -.2212
                                                  376.000   -.2217
                                                  377.000   -.2134

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ORB BASE   (REUG13)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.378 BETA (2) =   .016   BASE   1.000
                                               TAP NO
                                               378.000   -.2212
                                               379.000   -.2350
                                               380.000   -.2344
                                               381.000   -.2311

ALPHA (2) = -.327 BETA (3) = 4.028   BASE   1.000
                                               TAP NO
                                               369.000   -.2376
                                               370.000   -.2137
                                               371.000   -.2141
                                               372.000   -.2136
                                               373.000   -.2207
                                               374.000   -.2314
                                               375.000   -.2291
                                               376.000   -.2309
                                               377.000   -.2300
                                               378.000   -.2263
                                               379.000   -.2361
                                               380.000   -.2426
                                               381.000   -.2466

ALPHA (3) = 3.909 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.2124
                                               370.000   -.2158
                                               371.000   -.1957
                                               372.000   -.2103
                                               373.000   -.1930
                                               374.000   -.2184
                                               375.000   -.2145
                                               376.000   -.2151
                                               377.000   -.2163
                                               378.000   -.2153
                                               379.000   -.2260
                                               380.000   -.2234
                                               381.000   -.2210

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-OFF ORB BASE   (REUG14)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -5.142 BETA (1) = -.006   BASE   1.000
                                               TAP NO
                                               369.000   -.3454
                                               370.000   -.3203
                                               371.000   -.3355
                                               372.000   -.3397
                                               373.000   -.3243
                                               374.000   -.3395
                                               375.000   -.3339
                                               376.000   -.3353
                                               377.000   -.3363
                                               378.000   -.3361
                                               379.000   -.3388
                                               380.000   -.3400
                                               381.000   -.3457

ALPHA (2) = -.321 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               369.000   -.3849
                                               370.000   -.3755
                                               371.000   -.3704
                                               372.000   -.3679
                                               373.000   -.3821
                                               374.000   -.3763
                                               375.000   -.3804
                                               376.000   -.3784
                                               377.000   -.3789
                                               378.000   -.3798
                                               379.000   -.3871
                                               380.000   -.3831
                                               381.000   -.3926

ALPHA (2) = -.432 BETA (2) =   .016   BASE   1.000
                                               TAP NO
                                               369.000   -.3345
                                               370.000   -.3083
                                               371.000   -.3246
                                               372.000   -.3271
                                               373.000   -.3116
                                               374.000   -.3305
                                               375.000   -.3251
                                               376.000   -.3263
                                               377.000   -.3260

ARC11-014IA19 OTS+STRUT SRB-NOM NFS-OFF ORB BASE   (REUG14)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.438 BETA (2) =   .016   BASE   1.000
                                               TAP NO
                                               378.000   -.3251
                                               379.000   -.3321
                                               380.000   -.3288
                                               381.000   -.3338

ALPHA (2) = -.396 BETA (3) = 4.025   BASE   1.000
                                               TAP NO
                                               369.000   -.3835
                                               370.000   -.3676
                                               371.000   -.3713
                                               372.000   -.3789
                                               373.000   -.3691
                                               374.000   -.3786
                                               375.000   -.3750
                                               376.000   -.3793
                                               377.000   -.3793
                                               378.000   -.3903
                                               379.000   -.3845
                                               380.000   -.3843
                                               381.000   -.3852

ALPHA (3) = 3.864 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               369.000   -.3556
                                               370.000   -.3362
                                               371.000   -.3493
                                               372.000   -.3530
                                               373.000   -.3310
                                               374.000   -.3561
                                               375.000   -.3499
                                               376.000   -.3540
                                               377.000   -.3524
                                               378.000   -.3495
                                               379.000   -.3583
                                               380.000   -.3544
                                               381.000   -.3581

PARAMETRIC DATA

REFERENCE DATA

ELV-IB =	8.000	ELV-OB =	4.000
RUDDER =	.000	MACH =	1.250
GIMBAL =	1.000		

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.113 BETA (1) = .003   BASE   1.000
                                                TAP NO
                                                369.000   -.2537
                                                370.000   -.2450
                                                371.000   -.2481
                                                372.000   -.2568
                                                373.000   -.2421
                                                374.000   -.2514
                                                375.000   -.2474
                                                376.000   -.2490
                                                377.000   -.2479
                                                378.000   -.2469
                                                379.000   -.2540
                                                380.000   -.2525
                                                381.000   -.2567

ALPHA (2) = -.390 BETA (1) = -4.000   BASE   1.000
                                                TAP NO
                                                369.000   -.2866
                                                370.000   -.2796
                                                371.000   -.2739
                                                372.000   -.2590
                                                373.000   -.2832
                                                374.000   -.2692
                                                375.000   -.2755
                                                376.000   -.2750
                                                377.000   -.2749
                                                378.000   -.2804
                                                379.000   -.2834
                                                380.000   -.2807
                                                381.000   -.2853

ALPHA (2) = -.363 BETA (2) = .012   BASE   1.000
                                                TAP NO
                                                369.000   -.2564
                                                370.000   -.2342
                                                371.000   -.2509
                                                372.000   -.2522
                                                373.000   -.2313
                                                374.000   -.2499
                                                375.000   -.2468
                                                376.000   -.2492
                                                377.000   -.2476

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ORB BASE   (REUG15)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.363 BETA (2) = .012

	BASE	1.000
	TAP NO	
	378.000	-.2470
	379.000	-.2527
	380.000	-.2514
	381.000	-.2550

ALPHA (2) = -.294 BETA (3) = 4.028

	BASE	1.000
	TAP NO	
	369.000	-.2787
	370.000	-.2675
	371.000	-.2673
	372.000	-.2694
	373.000	-.2555
	374.000	-.2749
	375.000	-.2719
	376.000	-.2740
	377.000	-.2734
	378.000	-.2732
	379.000	-.2815
	380.000	-.2798
	381.000	-.2794

ALPHA (3) = 3.834 BETA (1) = .012

	BASE	1.000
	TAP NO	
	369.000	-.2736
	370.000	-.2546
	371.000	-.2572
	372.000	-.2742
	373.000	-.2508
	374.000	-.2698
	375.000	-.2679
	376.000	-.2697
	377.000	-.2583
	378.000	-.2694
	379.000	-.2753
	380.000	-.2779
	381.000	-.2788

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ORB BASE   (REUG16)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.098 BETA (1) =   .012   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2016
                                                 370.000   -.1979
                                                 371.000   -.1972
                                                 372.000   -.2029
                                                 373.000   -.1911
                                                 374.000   -.2004
                                                 375.000   -.2004
                                                 376.000   -.1998
                                                 377.000   -.1976
                                                 378.000   -.1947
                                                 379.000   -.2055
                                                 380.000   -.2037
                                                 381.000   -.2071

ALPHA (2) = -.393 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2176
                                                 370.000   -.2068
                                                 371.000   -.2064
                                                 372.000   -.1749
                                                 373.000   -.2128
                                                 374.000   -.1977
                                                 375.000   -.2053
                                                 376.000   -.2083
                                                 377.000   -.2039
                                                 378.000   -.2057
                                                 379.000   -.2061
                                                 380.000   -.2065
                                                 381.000   -.2150

ALPHA (2) = -.291 BETA (2) = -.003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2055
                                                 370.000   -.1934
                                                 371.000   -.1978
                                                 372.000   -.2018
                                                 373.000   -.1983
                                                 374.000   -.2035
                                                 375.000   -.1995
                                                 376.000   -.2006
                                                 377.000   -.2013

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ORB BASE   (REUG16)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.291 BETA (2) = -.003   BASE   1.000
                                               TAP NO
                                               378.000   -.1959
                                               379.000   -.2045
                                               380.000   -.2050
                                               381.000   -.2047

ALPHA (2) = -.318 BETA (3) = 4.025   BASE   1.000
                                               TAP NO
                                               369.000   -.2201
                                               370.000   -.2074
                                               371.000   -.1924
                                               372.000   -.2073
                                               373.000   -.1748
                                               374.000   -.2073
                                               375.000   -.2025
                                               376.000   -.2039
                                               377.000   -.2003
                                               378.000   -.1947
                                               379.000   -.2097
                                               380.000   -.2068
                                               381.000   -.2040

ALPHA (3) = 3.861 BETA (1) = -.006   BASE   1.000
                                               TAP NO
                                               369.000   -.2119
                                               370.000   -.1955
                                               371.000   -.2006
                                               372.000   -.2120
                                               373.000   -.1906
                                               374.000   -.2096
                                               375.000   -.2043
                                               376.000   -.2075
                                               377.000   -.2092
                                               378.000   -.2026
                                               379.000   -.2079
                                               380.000   -.2089
                                               381.000   -.2106

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI ORB BASE   (REUG17)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .009   BASE   ·1.000
                                               TAP NO
                                               369.000   -.5014
                                               370.000   -.5039
                                               371.000   -.5242
                                               372.000   -.5026
                                               373.000   -.5152
                                               374.000   -.4305
                                               375.000   -.5283
                                               376.000   -.3957
                                               377.000   -.5128
                                               378.000   -.4730
                                               379.000   -.3241
                                               380.000   -.3209
                                               381.000   -.3825

ALPHA (2) = -.426 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               369.000   -.5021
                                               370.000   -.5140
                                               371.000   -.5157
                                               372.000   -.5217
                                               373.000   -.5569
                                               374.000   -.4773
                                               375.000   -.5673
                                               376.000   -.4441
                                               377.000   -.5536
                                               378.000   -.5247
                                               379.000   -.3862
                                               380.000   -.3882
                                               381.000   -.4937

ALPHA (2) = -.447 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               369.000   -.4975
                                               370.000   -.5105
                                               371.000   -.5113
                                               372.000   -.5032
                                               373.000   -.5398
                                               374.000   -.4516
                                               375.000   -.5457
                                               376.000   -.4026
                                               377.000   -.5099

ARC11-014IA19 OTS+STRUT SRB-HI MFS-HI ORB BASE   (REU617)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.447 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               378.000   -.4853
                                               379.000   -.3450
                                               380.000   -.3362
                                               381.000   -.3929

ALPHA (2) = -.435 BETA (3) = 4.028   BASE   1.000
                                               TAP NO
                                               369.000   -.5179
                                               370.000   -.5189
                                               371.000   -.5317
                                               372.000   -.5273
                                               373.000   -.5595
                                               374.000   -.4916
                                               375.000   -.5615
                                               376.000   -.4343
                                               377.000   -.5577
                                               378.000   -.5036
                                               379.000   -.4090
                                               380.000   -.3483
                                               381.000   -.4484

ALPHA (3) = 3.930 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.4434
                                               370.000   -.4633
                                               371.000   -.4700
                                               372.000   -.4641
                                               373.000   -.4934
                                               374.000   -.4289
                                               375.000   -.5119
                                               376.000   -.3852
                                               377.000   -.4883
                                               378.000   -.4619
                                               379.000   -.3534
                                               380.000   -.3388
                                               381.000   -.3868

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI ORB BASE   (REUG18)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.098 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4302
                                                 370.000   -.4425
                                                 371.000   -.4570
                                                 372.000   -.4397
                                                 373.000   -.4525
                                                 374.000   -.4083
                                                 375.000   -.4608
                                                 376.000   -.3705
                                                 377.000   -.4492
                                                 378.000   -.4240
                                                 379.000   -.3429
                                                 380.000   -.3270
                                                 381.000   -.3683

ALPHA (2) = -.390 BETA (1) = -4.003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.5010
                                                 370.000   -.4696
                                                 371.000   -.5111
                                                 372.000   -.4792
                                                 373.000   -.5069
                                                 374.000   -.4621
                                                 375.000   -.4911
                                                 376.000   -.4163
                                                 377.000   -.5035
                                                 378.000   -.4738
                                                 379.000   -.4178
                                                 380.000   -.3720
                                                 381.000   -.4263

ALPHA (2) = -.438 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4283
                                                 370.000   -.4423
                                                 371.000   -.4466
                                                 372.000   -.4327
                                                 373.000   -.4428
                                                 374.000   -.4137
                                                 375.000   -.4592
                                                 376.000   -.3606
                                                 377.000   -.4402

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI ORB BASE   (REUG18)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.438 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                378.000   -.4122
                                                379.000   -.3441
                                                380.000   -.3210
                                                381.000   -.3642

ALPHA (2) = -.573 BETA (3) = 4.028   BASE   1.000
                                                TAP NO
                                                369.000   -.4705
                                                370.000   -.4905
                                                371.000   -.4707
                                                372.000   -.4903
                                                373.000   -.4756
                                                374.000   -.4445
                                                375.000   -.4932
                                                376.000   -.3764
                                                377.000   -.4801
                                                378.000   -.4590
                                                379.000   -.3978
                                                380.000   -.3284
                                                381.000   -.4101

ALPHA (3) = 3.919 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                369.000   -.4532
                                                370.000   -.4657
                                                371.000   -.4740
                                                372.000   -.4505
                                                373.000   -.4638
                                                374.000   -.4380
                                                375.000   -.4796
                                                376.000   -.3764
                                                377.000   -.4618
                                                378.000   -.4380
                                                379.000   -.3754
                                                380.000   -.3428
                                                381.000   -.3826

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI ORB BASE   (REUG19)   (04 FEB 75)

<table>
<tr><td colspan="2">REFERENCE DATA</td><td colspan="2">PARAMETRIC DATA</td></tr>
</table>

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.188 BETA (1) = -.009   BASE   1.000
                                              TAP NO
                                              369.000   -.3006
                                              370.000   -.3335
                                              371.000   -.3481
                                              372.000   -.3359
                                              373.000   -.3450
                                              374.000   -.2920
                                              375.000   -.3497
                                              376.000   -.2686
                                              377.000   -.3307
                                              378.000   -.2992
                                              379.000   -.2326
                                              380.000   -.2263
                                              381.000   -.2534

ALPHA (2) = -.459 BETA (1) = -4.000   BASE   1.000
                                              TAP NO
                                              369.000   -.3522
                                              370.000   -.3387
                                              371.000   -.3713
                                              372.000   -.3384
                                              373.000   -.3724
                                              374.000   -.3254
                                              375.000   -.3562
                                              376.000   -.2896
                                              377.000   -.3626
                                              378.000   -.3325
                                              379.000   -.2841
                                              380.000   -.2571
                                              381.000   -.2827

ALPHA (2) = -.438 BETA (2) =   .012   BASE   1.000
                                              TAP NO
                                              369.000   -.3109
                                              370.000   -.3319
                                              371.000   -.3381
                                              372.000   -.3325
                                              373.000   -.3391
                                              374.000   -.2983
                                              375.000   -.3431
                                              376.000   -.2611
                                              377.000   -.3344

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI ORB BASE   (REUG19)

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.436 BETA (2) = .012   BASE   1.000
                                              TAP NO
                                              378.000   -.2986
                                              379.000   -.2441
                                              380.000   -.2272
                                              381.000   -.2590

ALPHA (2) = -.549 BETA (3) = 4.028   BASE   1.000
                                              TAP NO
                                              369.000   -.3350
                                              370.000   -.3690
                                              371.000   -.3387
                                              372.000   -.3680
                                              373.000   -.3395
                                              374.000   -.3257
                                              375.000   -.3669
                                              376.000   -.2703
                                              377.000   -.3372
                                              378.000   -.3156
                                              379.000   -.2873
                                              380.000   -.2057
                                              381.000   -.2594

ALPHA (3) = 3.516 BETA (1) = .012   BASE   1.000
                                              TAP NO
                                              369.000   -.3326
                                              370.000   -.3494
                                              371.000   -.3521
                                              372.000   -.3411
                                              373.000   -.3496
                                              374.000   -.3244
                                              375.000   -.3648
                                              376.000   -.2674
                                              377.000   -.3488
                                              378.000   -.3174
                                              379.000   -.2708
                                              380.000   -.2394
                                              381.000   -.2741

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI ORB BASE   (REUG20)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               369.000   -.2584
                                               370.000   -.2685
                                               371.000   -.2773
                                               372.000   -.2682
                                               373.000   -.2823
                                               374.000   -.2284
                                               375.000   -.2853
                                               376.000   -.2052
                                               377.000   -.2777
                                               378.000   -.2456
                                               379.000   -.1852
                                               380.000   -.1694
                                               381.000   -.1986

ALPHA (2) = -.489 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               369.000   -.2844
                                               370.000   -.2495
                                               371.000   -.2875
                                               372.000   -.2549
                                               373.000   -.2932
                                               374.000   -.2347
                                               375.000   -.2644
                                               376.000   -.2116
                                               377.000   -.2838
                                               378.000   -.2430
                                               379.000   -.2131
                                               380.000   -.1783
                                               381.000   -.1975

ALPHA (2) = -.432 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               369.000   -.2513
                                               370.000   -.2518
                                               371.000   -.2655
                                               372.000   -.2586
                                               373.000   -.2723
                                               374.000   -.2222
                                               375.000   -.2669
                                               375.000   -.1910
                                               377.000   -.2584

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI ORB BASE   (REUG20)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.432 BETA (2) =   .009   BASE   1.000
                                           TAP NO
                                           378.000   -.2275
                                           379.000   -.1808
                                           380.000   -.1654
                                           381.000   -.1865

ALPHA (2) = -.486 BETA (3) = 4.025   BASE   1.000
                                           TAP NO
                                           369.000   -.2624
                                           370.000   -.2816
                                           371.000   -.2519
                                           372.000   -.2902
                                           373.000   -.2611
                                           374.000   -.2351
                                           375.000   -.2853
                                           376.000   -.1983
                                           377.000   -.2531
                                           378.000   -.2214
                                           379.000   -.2008
                                           380.000   -.1646
                                           381.000   -.1917

ALPHA (3) = 3.657 BETA (1) =   .009   BASE   1.000
                                           TAP NO
                                           369.000   -.2611
                                           370.000   -.2622
                                           371.000   -.2682
                                           372.000   -.2630
                                           373.000   -.2756
                                           374.000   -.2392
                                           375.000   -.2764
                                           376.000   -.1913
                                           377.000   -.2670
                                           378.000   -.2288
                                           379.000   -.1902
                                           380.000   -.1618
                                           381.000   -.1939

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG21)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.200 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2822
                                                 370.000   -.2807
                                                 371.000   -.2768
                                                 372.000   -.2661
                                                 373.000   -.2595
                                                 374.000   -.2791
                                                 375.000   -.2768
                                                 376.000   -.2774
                                                 377.000   -.2765
                                                 378.000   -.2725
                                                 379.000   -.2836
                                                 380.000   -.2805
                                                 381.000   -.2628

ALPHA (2) = -.180 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3035
                                                 370.000   -.2939
                                                 371.000   -.2905
                                                 372.000   -.2619
                                                 373.000   -.2758
                                                 374.000   -.2815
                                                 375.000   -.2891
                                                 376.000   -.2873
                                                 377.000   -.2873
                                                 378.000   -.2863
                                                 379.000   -.2931
                                                 380.000   -.2889
                                                 381.000   -.2937

ALPHA (2) = -.291 BETA (2) =   .012   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2766
                                                 370.000   -.2701
                                                 371.000   -.2664
                                                 372.000   -.2536
                                                 373.000   -.2468
                                                 374.000   -.2733
                                                 375.000   -.2692
                                                 376.000   -.2591
                                                 377.000   -.2664

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG21)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.291 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                378.000   -.2639
                                                379.000   -.2764
                                                380.000   -.2724
                                                381.000   -.2749

ALPHA (2) = -.306 BETA (3) = 4.028   BASE   1.000
                                                TAP NO
                                                369.000   -.2963
                                                370.000   -.2896
                                                371.000   -.2816
                                                372.000   -.2811
                                                373.000   -.2669
                                                374.000   -.2855
                                                375.000   -.2879
                                                376.000   -.2861
                                                377.000   -.2864
                                                378.000   -.2819
                                                379.000   -.2949
                                                380.000   -.2913
                                                381.000   -.2927

ALPHA (3) = 3.969 BETA (1) =   .006   BASE   1.000
                                                TAP NO
                                                369.000   -.2904
                                                370.000   -.2789
                                                371.000   -.2762
                                                372.000   -.2695
                                                373.000   -.2545
                                                374.000   -.2943
                                                375.000   -.2833
                                                376.000   -.2853
                                                377.000   -.2809
                                                378.000   -.2722
                                                379.000   -.2987
                                                380.000   -.2872
                                                381.000   -.2849

ARC11-014IA19 OTS+STRUT SRB-NOM MFS-NOM ORB BASE   (REUG22)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .006   BASE   1.000
                                              TAP NO
                                              369.000   -.2825
                                              370.000   -.2887
                                              371.000   -.2955
                                              372.000   -.2863
                                              373.000   -.3010
                                              374.000   -.2604
                                              375.000   -.3018
                                              376.000   -.2318
                                              377.000   -.2967
                                              378.000   -.2700
                                              379.000   -.2280
                                              380.000   -.2075
                                              381.000   -.2348

ALPHA (2) = -.348 BETA (1) = -3.997   BASE   1.000
                                              TAP NO
                                              369.000   -.3187
                                              370.000   -.2895
                                              371.000   -.3155
                                              372.000   -.2858
                                              373.000   -.3179
                                              374.000   -.2725
                                              375.000   -.2937
                                              376.000   -.2487
                                              377.000   -.3119
                                              378.000   -.2856
                                              379.000   -.2534
                                              380.000   -.2353
                                              381.000   -.2450

ALPHA (2) = -.366 BETA (2) =   .012   BASE   1.000
                                              TAP NO
                                              369.000   -.2797
                                              370.000   -.2789
                                              371.000   -.2874
                                              372.000   -.2798
                                              373.000   -.2931
                                              374.000   -.2548
                                              375.000   -.2980
                                              376.000   -.2279
                                              377.000   -.2817

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REU022)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.360 BETA (2) = .012   BASE   1.000
                                            TAP NO
                                            378.000   -.2586
                                            379.000   -.2274
                                            380.000   -.2135
                                            381.000   -.2285

ALPHA (2) = -.522 BETA (3) = 4.031   BASE   1.000
                                            TAP NO
                                            369.000   -.2878
                                            370.000   -.3063
                                            371.000   -.2813
                                            372.000   -.3083
                                            373.000   -.2873
                                            374.000   -.2666
                                            375.000   -.3054
                                            376.000   -.2315
                                            377.000   -.2856
                                            378.000   -.2584
                                            379.000   -.2441
                                            380.000   -.2121
                                            381.000   -.2399

ALPHA (3) = 3.942 BETA (1) = .012   BASE   1.000
                                            TAP NO
                                            369.000   -.2921
                                            370.000   -.2900
                                            371.000   -.2929
                                            372.000   -.2870
                                            373.000   -.2975
                                            374.000   -.2699
                                            375.000   -.3025
                                            376.000   -.2316
                                            377.000   -.2901
                                            378.000   -.2657
                                            379.000   -.2397
                                            380.000   -.2126
                                            381.000   -.2391

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG23)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.047 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2211
                                                 370.000   -.2222
                                                 371.000   -.2161
                                                 372.000   -.2251
                                                 373.000   -.2187
                                                 374.000   -.2326
                                                 375.000   -.2381
                                                 376.000   -.2378
                                                 377.000   -.2356
                                                 378.000   -.2380
                                                 379.000   -.2511
                                                 380.000   -.2537
                                                 381.000   -.2535

ALPHA (2) = -.276 BETA (1) = -4.003   BASE   1.000
                                                 TAP NO   .
                                                 369.000   -.2667
                                                 370.000   -.2455
                                                 371.000   -.2373
                                                 372.000   -.2609
                                                 373.000   -.2495
                                                 374.000   -.2674
                                                 375.000   -.2693
                                                 376.000   -.2694
                                                 377.000   -.2659
                                                 378.000   -.2702
                                                 379.000   -.2808
                                                 380.000   -.2853
                                                 381.000   -.2825

ALPHA (2) = -.237 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2278
                                                 370.000   -.2176
                                                 371.000   -.2137
                                                 372.000   -.2257
                                                 373.000   -.2182
                                                 374.000   -.2315
                                                 375.000   -.2319
                                                 376.000   -.2393
                                                 377.000   -.2221

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG23)

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.237 BETA (2) = .009

BASE	1.000
TAP NO	
378.000	-.2233
379.000	-.2351
380.000	-.2311
381.000	-.2356

ALPHA (2) = -.195 BETA (3) = 4.028

BASE	1.000
TAP NO	
369.000	-.2527
370.000	-.2340
371.000	-.2318
372.000	-.2425
373.000	-.2472
374.000	-.2488
375.000	-.2453
376.000	-.2535
377.000	-.2498
378.000	-.2451
379.000	-.2497
380.000	-.2510
381.000	-.2503

ALPHA (3) = 3.855 BETA (1) = .003

BASE	1.000
TAP NO	
369.000	-.2041
370.000	-.2093
371.000	-.1976
372.000	-.2099
373.000	-.1988
374.000	-.2255
375.000	-.2193
376.000	-.2193
377.000	-.2160
378.000	-.2150
379.000	-.2267
380.000	-.2224
381.000	-.2287

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG24)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .009   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3626
                                                 370.000   -.3393
                                                 371.000   -.3512
                                                 372.000   -.3573
                                                 373.000   -.3396
                                                 374.000   -.3566
                                                 375.000   -.3533
                                                 376.000   -.3529
                                                 377.000   -.3551
                                                 378.000   -.3530
                                                 379.000   -.3569
                                                 380.000   -.3544
                                                 381.000   -.3603

ALPHA (2) = -.279 BETA (1) = -4.008   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3997
                                                 370.000   -.3922
                                                 371.000   -.3785
                                                 372.000   -.3970
                                                 373.000   -.3907
                                                 374.000   -.3970
                                                 375.000   -.3956
                                                 376.000   -.3924
                                                 377.000   -.3905
                                                 378.000   -.3921
                                                 379.000   -.4009
                                                 380.000   -.3981
                                                 381.000   -.3956

ALPHA (2) = -.248 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3623
                                                 370.000   -.3325
                                                 371.000   -.3493
                                                 372.000   -.3514
                                                 373.000   -.3297
                                                 374.000   -.3556
                                                 375.000   -.3495
                                                 376.000   -.3514
                                                 377.000   -.3529

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG24)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.246 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                378.000   -.3484
                                                379.000   -.3566
                                                380.000   -.3545
                                                381.000   -.3590

ALPHA (2) = -.273 BETA (3) = 4.025   BASE   1.000
                                                TAP NO
                                                369.000   -.4095
                                                370.000   -.3916
                                                371.000   -.3958
                                                372.000   -.3954
                                                373.000   -.3917
                                                374.000   -.3986
                                                375.000   -.3975
                                                376.000   -.4030
                                                377.000   -.4064
                                                378.000   -.4093
                                                379.000   -.4029
                                                380.000   -.4076
                                                381.000   -.4118

ALPHA (3) = 3.804 BETA (1) = -.003   BASE   1.000
                                                TAP NO
                                                369.000   -.3768
                                                370.000   -.3564
                                                371.000   -.3665
                                                372.000   -.3707
                                                373.000   -.3460
                                                374.000   -.3766
                                                375.000   -.3663
                                                376.000   -.3699
                                                377.000   -.3694
                                                378.000   -.3662
                                                379.000   -.3762
                                                380.000   -.3737
                                                381.000   -.3762

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG25)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.975 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               369.000   -.3079
                                               370.000   -.2901
                                               371.000   -.2961
                                               372.000   -.3000
                                               373.000   -.2912
                                               374.000   -.2990
                                               375.000   -.2985
                                               376.000   -.2990
                                               377.000   -.2999
                                               378.000   -.3007
                                               379.000   -.2999
                                               380.000   -.3001
                                               381.000   -.3058

ALPHA (2) = -.255 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               369.000   -.3322
                                               370.000   -.3249
                                               371.000   -.3187
                                               372.000   -.3093
                                               373.000   -.3255
                                               374.000   -.3198
                                               375.000   -.3219
                                               376.000   -.3198
                                               377.000   -.3206
                                               378.000   -.3266
                                               379.000   -.3316
                                               380.000   -.3235
                                               381.000   -.3260

ALPHA (2) = -.285 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               369.000   -.3031
                                               370.000   -.2804
                                               371.000   -.2938
                                               372.000   -.2919
                                               373.000   -.2753
                                               374.000   -.2950
                                               375.000   -.2927
                                               376.000   -.2911
                                               377.000   -.2928

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG25)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.285 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                378.000   -.2911
                                                379.000   -.2965
                                                380.000   -.2942
                                                381.000   -.2983

ALPHA (2) = -.189 BETA (3) = 4.031   BASE   1.000
                                                TAP NO
                                                369.000   -.3362
                                                370.000   -.3191
                                                371.000   -.3142
                                                372.000   -.3266
                                                373.000   -.3171
                                                374.000   -.3271
                                                375.000   -.3254
                                                376.000   -.3260
                                                377.000   -.3287
                                                378.000   -.3304
                                                379.000   -.3295
                                                380.000   -.3325
                                                381.000   -.3326

ALPHA (3) = 4.005 BETA (1) =   .003   BASE   1.000
                                                TAP NO
                                                369.000   -.3252
                                                370.000   -.3124
                                                371.000   -.3141
                                                372.000   -.3193
                                                373.000   -.3030
                                                374.000   -.3252
                                                375.000   -.3185
                                                376.000   -.3197
                                                377.000   -.3174
                                                378.000   -.3179
                                                379.000   -.3258
                                                380.000   -.3234
                                                381.000   -.3244

ARC11-014IA19 OTS+STRUT SRB-OFF VTS-OFF ORB BASE   (REUG26)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-1B =   .000   ELV-0B =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.909 BETA (1) =   .009   BASE   1.000
                                               TAP NO
                                               369.000   -.2690
                                               370.000   -.2624
                                               371.000   -.2602
                                               372.000   -.2582
                                               373.000   -.2506
                                               374.000   -.2621
                                               375.000   -.2610
                                               376.000   -.2604
                                               377.000   -.2590
                                               378.000   -.2613
                                               379.000   -.2658
                                               380.000   -.2630
                                               381.000   -.2693

ALPHA (2) = -.243 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               369.000   -.2905
                                               370.000   -.2754
                                               371.000   -.2774
                                               372.000   -.2508
                                               373.000   -.2728
                                               374.000   -.2658
                                               375.000   -.2757
                                               376.000   -.2731
                                               377.000   -.2745
                                               378.000   -.2777
                                               379.000   -.2790
                                               380.000   -.2754
                                               381.000   -.2773

ALPHA (2) = -.237 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               369.000   -.2645
                                               370.000   -.2545
                                               371.000   -.2512
                                               372.000   -.2535
                                               373.000   -.2388
                                               374.000   -.2595
                                               375.000   -.2559
                                               376.000   -.2557
                                               377.000   -.2537

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG26)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.237 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                378.000   -.2518
                                                379.000   -.2616
                                                380.000   -.2587
                                                381.000   -.2604

ALPHA .(2) = -.234 BETA (3) = 4.031   BASE   1.000
                                                TAP NO
                                                369.000   -.2892
                                                370.000   -.2782
                                                371.000   -.2646
                                                372.000   -.2779
                                                373.000   -.2559
                                                374.000   -.2765
                                                375.000   -.2757
                                                376.000   -.2757
                                                377.000   -.2765
                                                378.000   -.2765
                                                379.000   -.2822
                                                380.000   -.2773
                                                381.000   -.2796

ALPHA (3) = 4.047 BETA (1) =   .006   BASE   1.000
                                                TAP NO
                                                369.000   -.2787
                                                370.000   -.2652
                                                371.000   -.2621
                                                372.000   -.2634
                                                373.000   -.2463
                                                374.000   -.2692
                                                375.000   -.2657
                                                376.000   -.2661
                                                377.000   -.2663
                                                378.000   -.2677
                                                379.000   -.2708
                                                380.000   -.2706
                                                381.000   -.2730

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG27)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
SREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

  SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.125 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4945
                                                 370.000   -.5006
                                                 371.000   -.5006
                                                 372.000   -.5103
                                                 373.000   -.5244
                                                 374.000   -.4260
                                                 375.000   -.5263
                                                 376.000   -.3936
                                                 377.000   -.5135
                                                 378.000   -.4751
                                                 379.000   -.3637
                                                 380.000   -.3176
                                                 381.000   -.4042

ALPHA (2) = -.396 BETA (1) = -4.003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4854
                                                 370.000   -.5031
                                                 371.000   -.4954
                                                 372.000   -.5168
                                                 373.000   -.5234
                                                 374.000   -.4699
                                                 375.000   -.5355
                                                 376.000   -.4227
                                                 377.000   -.5099
                                                 378.000   -.4977
                                                 379.000   -.3959
                                                 380.000   -.3728
                                                 381.000   -.4763

ALPHA (2) = -.400 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4883
                                                 370.000   -.4803
                                                 371.000   -.4757
                                                 372.000   -.4696
                                                 373.000   -.4793
                                                 374.000   -.4053
                                                 375.000   -.4885
                                                 376.000   -.3547
                                                 377.000   -.4539

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG27)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.408 BETA (2) = .009 .   BASE   1.000
                                            TAP NO
                                            378.000   -.4121
                                            379.000   -.3306
                                            380.000   -.2897
                                            381.000   -.3434

ALPHA (2) = -.336 BETA (3) = 4.025   BASE   1.000
                                            TAP NO
                                            369.000   -.4818
                                            370.000   -.4879
                                            371.000   -.5195
                                            372.000   -.4974
                                            373.000   -.5351
                                            374.000   -.4568
                                            375.000   -.5205
                                            376.000   -.4035
                                            377.000   -.4944
                                            378.000   -.4594
                                            379.000   -.3912
                                            380.000   -.3225
                                            381.000   -.4165

ALPHA (3) = 3.792 BETA (1) = -.003   BASE   1.000
                                            TAP NO
                                            369.000   -.4394
                                            370.000   -.4565
                                            371.000   -.4593
                                            372.000   -.4554
                                            373.000   -.4599
                                            374.000   -.3896
                                            375.000   -.4540
                                            376.000   -.3355
                                            377.000   -.4011
                                            378.000   -.3815
                                            379.000   -.3203
                                            380.000   -.2831
                                            381.000   -.3297

ARC11-014IA19 OTS+STRUT SRB-NOM WFS-NOM ORB BASE   (REUG28)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .003   BASE   1.000
                                                TAP NO
                                                369.000   -.4925
                                                370.000   -.4915
                                                371.000   -.5110
                                                372.000   -.4845
                                                373.000   -.5039
                                                374.000   -.4465
                                                375.000   -.5110
                                                376.000   -.4146
                                                377.000   -.5012
                                                378.000   -.4758
                                                379.000   -.3833
                                                380.000   -.3745
                                                381.000   -.4290

ALPHA (2) = -.465 BETA (1) = -4.003   BASE   1.000
                                                TAP NO
                                                369.000   -.5477
                                                370.000   -.5006
                                                371.000   -.5511
                                                372.000   -.5274
                                                373.000   -.5458
                                                374.000   -.5049
                                                375.000   -.5384
                                                376.000   -.4557
                                                377.000   -.5507
                                                378.000   -.5130
                                                379.000   -.4521
                                                380.000   -.4110
                                                381.000   -.4714

ALPHA (2) = -.441 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                369.000   -.4795
                                                370.000   -.4774
                                                371.000   -.4952
                                                372.000   -.4713
                                                373.000   -.4939
                                                374.000   -.4416
                                                375.000   -.5041
                                                376.000   -.4046
                                                377.000   -.4903

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG28)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.447 BETA (2) = .012   BASE   1.000
                                              TAP NO
                                              378.000   -.4669
                                              379.000   -.3778
                                              380.000   -.3673
                                              381.000   -.4233

ALPHA (2) = -.405 BETA (3) = 4.031   BASE   1.000
                                              TAP NO
                                              369.000   -.5252
                                              370.000   -.5343
                                              371.000   -.5194
                                              372.000   -.5340
                                              373.000   -.5490
                                              374.000   -.4935
                                              375.000   -.5482
                                              376.000   -.4396
                                              377.000   -.5301
                                              378.000   -.5093
                                              379.000   -.4476
                                              380.000   -.4016
                                              381.000   -.4682

ALPHA (3) = 3.819 BETA (1) = .009   BASE   1.000
                                              TAP NO
                                              369.000   -.5053
                                              370.000   -.5053
                                              371.000   -.5156
                                              372.000   -.4944
                                              373.000   -.5142
                                              374.000   -.4786
                                              375.000   -.5307
                                              376.000   -.4234
                                              377.000   -.5134
                                              378.000   -.4906
                                              379.000   -.4151
                                              380.000   -.3899
                                              381.000   -.4381

ARC11-014IA19 OFS+STRUT SRB-NOM MPS-NOM ORB BASE   (REU629)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) =   .006   BASE   1.000
                                               TAP NO
                                               369.000   -.3632
                                               370.000   -.3660
                                               371.000   -.3806
                                               372.000   -.3608
                                               373.000   -.3808
                                               374.000   -.3357
                                               375.000   -.3898
                                               376.000   -.3062
                                               377.000   -.3809
                                               378.000   -.3531
                                               379.000   -.2697
                                               380.000   -.2719
                                               381.000   -.3078

ALPHA (2) = -.375 BETA (1) = -3.997   BASE   1.000
                                               TAP NO
                                               369.000   -.4094
                                               370.000   -.3680
                                               371.000   -.4125
                                               372.000   -.3786
                                               373.000   -.4088
                                               374.000   -.3658
                                               375.000   -.3936
                                               376.000   -.3350
                                               377.000   -.4145
                                               378.000   -.3779
                                               379.000   -.3163
                                               380.000   -.2856
                                               381.000   -.3225

ALPHA (2) = -.406 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               369.000   -.3663
                                               370.000   -.3649
                                               371.000   -.3739
                                               372.000   -.3579
                                               373.000   -.3788
                                               374.000   -.3303
                                               375.000   -.3845
                                               376.000   -.2972
                                               377.000   -.3691

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG29)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.408 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               378.000   -.3480
                                               379.000   -.2735
                                               380.000   -.2650
                                               381.000   -.3028

ALPHA (2) = -.381 BETA (3) = 4.031   BASE   1.000
                                               TAP NO
                                               369.000   -.3878
                                               370.000   -.4005
                                               371.000   -.3811
                                               372.000   -.4032
                                               373.000   -.3918
                                               374.000   -.3562
                                               375.000   -.4059
                                               376.000   -.3173
                                               377.000   -.3901
                                               378.000   -.3687
                                               379.000   -.3237
                                               380.000   -.2759
                                               381.000   -.3269

ALPHA (3) = 3.843 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               369.000   -.3922
                                               370.000   -.3800
                                               371.000   -.3905
                                               372.000   -.3716
                                               373.000   -.3902
                                               374.000   -.3526
                                               375.000   -.4016
                                               376.000   -.3034
                                               377.000   -.3851
                                               378.000   -.3609
                                               379.000   -.2941
                                               380.000   -.2697
                                               381.000   -.3137

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG30)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.224 BETA (1) =   .006   BASE   1.000
                                               TAP NO
                                               369.000   -.2785
                                               370.000   -.2817
                                               371.000   -.2865
                                               372.000   -.2773
                                               373.000   -.2909
                                               374.000   -.2562
                                               375.000   -.2997
                                               376.000   -.2233
                                               377.000   -.2881
                                               378.000   -.2696
                                               379.000   -.1981
                                               380.000   -.1914
                                               381.000   -.2259

ALPHA (2) = -.444 BETA (1) = -3.997   BASE   1.000
                                               TAP NO
                                               369.000   -.3155
                                               370.000   -.2765
                                               371.000   -.3181
                                               372.000   -.2872
                                               373.000   -.3145
                                               374.000   -.2711
                                               375.000   -.3002
                                               376.000   -.2482
                                               377.000   -.3147
                                               378.000   -.2826
                                               379.000   -.2360
                                               380.000   -.2255
                                               381.000   -.2271

ALPHA (2) = -.409 BETA (2) =   .016   BASE   1.000
                                               TAP NO
                                               369.000   -.2824
                                               370.000   -.2846
                                               371.000   -.2880
                                               372.000   -.2781
                                               373.000   -.2936
                                               374.000   -.2560
                                               375.000   -.2954
                                               376.000   -.2265
                                               377.000   -.2877

ARC11-014IA19 ORS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG30)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.405 BETA (2) =   .016   BASE   1.000
                                               TAP NO
                                               378.000   -.2566
                                               379.000   -.2078
                                               380.000   -.1979
                                               381.000   -.2141

ALPHA (2) = -.360 BETA (3) = 4.031   BASE   1.000
                                               TAP NO
                                               369.000   -.2917
                                               370.000   -.2996
                                               371.000   -.2788
                                               372.000   -.3039
                                               373.000   -.2849
                                               374.000   -.2559
                                               375.000   -.3025
                                               376.000   -.2296
                                               377.000   -.2850
                                               378.000   -.2543
                                               379.000   -.2257
                                               380.000   -.1937
                                               381.000   -.2108

ALPHA (3) = 3.819 BETA (1) =   .009   BASE   1.000
                                               TAP NO
                                               369.000   -.2916
                                               370.000   -.2939
                                               371.000   -.2958
                                               372.000   -.2874
                                               373.000   -.3012
                                               374.000   -.2656
                                               375.000   -.3066
                                               376.000   -.2294
                                               377.000   -.2981
                                               378.000   -.2652
                                               379.000   -.2203
                                               380.000   -.1991
                                               381.000   -.2214

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG31)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.020 BETA (1) = .006   BASE   1.000
                                             TAP NO
                                             369.000   -.2252
                                             370.000   -.1939
                                             371.000   -.2326
                                             372.000   -.2216
                                             373.000   .0000
                                             374.000   -.2236
                                             375.000   -.2206
                                             376.000   -.2190
                                             377.000   -.2178
                                             378.000   -.2180
                                             379.000   -.2290
                                             380.000   -.2338
                                             381.000   -.2350

ALPHA (2) = -.288 BETA (1) = -4.003   BASE   1.000
                                             TAP NO
                                             369.000   -.2888
                                             370.000   -.2249
                                             371.000   -.2577
                                             372.000   -.2595
                                             373.000   .0000
                                             374.000   -.2599
                                             375.000   -.2540
                                             376.000   -.2650
                                             377.000   -.2615
                                             378.000   -.2619
                                             379.000   -.2693
                                             380.000   -.2735
                                             381.000   -.2682

ALPHA (2) = -.274 BETA (2) =   .009   BASE   1.000
                                             TAP NO
                                             369.000   -.2206
                                             370.000   -.1914
                                             371.000   -.2267
                                             372.000   -.2218
                                             373.000   .0000
                                             374.000   -.2146
                                             375.000   -.2121
                                             376.000   -.2177
                                             377.000   -.2122

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG31)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.279 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                378.000   -.2056
                                                379.000   -.2144
                                                380.000   -.2109
                                                381.000   -.2154

ALPHA (2) = -.264 BETA (3) = 4.031   BASE   1.000
                                                TAP NO
                                                369.000   -.2366
                                                370.000   -.2131
                                                371.000   -.2497
                                                372.000   -.2378
                                                373.000   .0000
                                                374.000   -.2246
                                                375.000   -.2217
                                                376.000   -.2266
                                                377.000   -.2288
                                                378.000   -.2397
                                                379.000   -.2462
                                                380.000   -.2452
                                                381.000   -.2515

ALPHA (3) = 3.978 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                369.000   -.2044
                                                370.000   -.1766
                                                371.000   -.2115
                                                372.000   -.2038
                                                373.000   .0000
                                                374.000   -.2046
                                                375.000   -.1942
                                                376.000   -.2046
                                                377.000   -.2036
                                                378.000   -.1972
                                                379.000   -.2121
                                                380.000   -.2131
                                                381.000   -.2133

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG32)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
SREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3229
                                                 370.000   -.3191
                                                 371.000   -.3645
                                                 372.000   -.3400
                                                 373.000   .0000
                                                 374.000   -.3355
                                                 375.000   -.3280
                                                 376.000   -.3355
                                                 377.000   -.3352
                                                 378.000   -.3348
                                                 379.000   -.3420
                                                 380.000   -.3390
                                                 381.000   -.3427

ALPHA (2) = -.255 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3455
                                                 370.000   -.3466
                                                 371.000   -.3730
                                                 372.000   -.3514
                                                 373.000   .0000
                                                 374.000   -.3579
                                                 375.000   -.3486
                                                 376.000   -.3551
                                                 377.000   -.3564
                                                 378.000   -.3577
                                                 379.000   -.3662
                                                 380.000   -.3665
                                                 381.000   -.3544

ALPHA (2) = -.213 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3046
                                                 370.000   -.2854
                                                 371.000   -.3375
                                                 372.000   -.3195
                                                 373.000   .0000
                                                 374.000   -.3096
                                                 375.000   -.3034
                                                 376.000   -.3098
                                                 377.000   -.3099

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG32)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.213 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                378.000   -.3083
                                                379.000   -.3181
                                                380.000   -.3142
                                                381.000   -.3160

ALPHA (2) = -.219 BETA (3) = 4.028   BASE   1.000
                                                TAP NO
                                                369.000   -.3695
                                                370.000   -.3543
                                                371.000   -.4173
                                                372.000   -.3612
                                                373.000   .0000
                                                374.000   -.3668
                                                375.000   -.3641
                                                376.000   -.3716
                                                377.000   -.3694
                                                378.000   -.3775
                                                379.000   -.3858
                                                380.000   -.3847
                                                381.000   -.3852

ALPHA (3) = 3.98 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                369.000   -.3255
                                                370.000   -.3144
                                                371.000   -.3542
                                                372.000   -.3330
                                                373.000   .0000
                                                374.000   -.3326
                                                375.000   -.3281
                                                376.000   -.3324
                                                377.000   -.3306
                                                378.000   -.3278
                                                379.000   -.3429
                                                380.000   -.3373
                                                381.000   -.3400

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG33)   (04 FEB 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   .000   ELV-OB =   .000
RUDDER =   .000   MACH   =   1.250
GIMBAL =   2.000

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.044 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               369.000   -.2606
                                               370.000   -.2647
                                               371.000   -.3192
                                               372.000   -.2824
                                               373.000   .0000
                                               374.000   -.2800
                                               375.000   -.2726
                                               376.000   -.2792
                                               377.000   -.2816
                                               378.000   -.2834
                                               379.000   -.2946
                                               380.000   -.2897
                                               381.000   -.2938

ALPHA (2) = -.194 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               369.000   -.2844
                                               370.000   -.3085
                                               371.000   -.3265
                                               372.000   -.3039
                                               373.000   .0000
                                               374.000   -.3117
                                               375.000   -.3031
                                               376.000   -.3101
                                               377.000   -.3101
                                               378.000   -.3148
                                               379.000   -.3215
                                               380.000   -.3178
                                               381.000   -.3166

ALPHA (2) = -.162 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               369.000   -.2720
                                               370.000   -.2645
                                               371.000   -.3167
                                               372.000   -.2817
                                               373.000   .0000
                                               374.000   -.2812
                                               375.000   -.2754
                                               376.000   -.2923
                                               377.000   -.2847

ARC11-014IA19 OTS+STRUT SRB-OFF MFS-OFF ORB BASE   (REUG33)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.162 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 378.000   -.2862
                                                 379.000   -.2936
                                                 380.000   -.2906
                                                 381.000   -.2921

ALPHA (2) = -.210 BETA (3) = 4.031   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3160
                                                 370.000   -.3151
                                                 371.000   -.3647
                                                 372.000   -.3197
                                                 373.000   .0000
                                                 374.000   -.3198
                                                 375.000   -.3108
                                                 376.000   -.3179
                                                 377.000   -.3210
                                                 378.000   -.3273
                                                 379.000   -.3345
                                                 380.000   -.3324
                                                 381.000   -.3343

ALPHA (3) = 3.84   BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2916
                                                 370.000   -.2909
                                                 371.000   -.3291
                                                 372.000   -.3037
                                                 373.000   .0000
                                                 374.000   -.3059
                                                 375.000   -.2977
                                                 376.000   -.3040
                                                 377.000   -.3032
                                                 378.000   -.3043
                                                 379.000   -.3170
                                                 380.000   -.3110
                                                 381.000   -.3116

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG34)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2051
                                                 370.000   -.2458
                                                 371.000   -.2831
                                                 372.000   -.2561
                                                 373.000   .0000
                                                 374.000   -.2540
                                                 375.000   -.2478
                                                 376.000   -.2489
                                                 377.000   -.2515
                                                 378.000   -.2555
                                                 379.000   -.2639
                                                 380.000   -.2565
                                                 381.000   -.2610

ALPHA (2) = -.231 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2231
                                                 370.000   -.2732
                                                 371.000   -.2952
                                                 372.000   -.2739
                                                 373.000   .0000
                                                 374.000   -.2745
                                                 375.000   -.2656
                                                 376.000   -.2706
                                                 377.000   -.2735
                                                 378.000   -.2774
                                                 379.000   -.2790
                                                 380.000   -.2760
                                                 381.000   -.2756

ALPHA (2) = -.231 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2124
                                                 370.000   -.2421
                                                 371.000   -.2750
                                                 372.000   -.2443
                                                 373.000   .0000
                                                 374.000   -.2511
                                                 375.000   -.2440
                                                 376.000   -.2455
                                                 377.000   -.2479

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ORB BASE   (REUG34)

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.231 BETA (2) = .009   BASE   1.000
                                             TAP NO
                                             378.000   -.2493
                                             379.000   -.2615
                                             380.000   -.2547
                                             381.000   -.2547

ALPHA (2) = -.210 BETA (3) = 4.028   BASE   1.000
                                             TAP NO
                                             369.000   -.2596
                                             370.000   -.2822
                                             371.000   -.3117
                                             372.000   -.2662
                                             373.000   .0000
                                             374.000   -.2769
                                             375.000   -.2690
                                             376.000   -.2745
                                             377.000   -.2802
                                             378.000   -.2799
                                             379.000   -.2881
                                             380.000   -.2922
                                             381.000   -.2836

ALPHA (3) = 3.930 BETA (1) = .003   BASE   1.000
                                             TAP NO
                                             369.000   -.2254
                                             370.000   -.2615
                                             371.000   -.2878
                                             372.000   -.2554
                                             373.000   .0000
                                             374.000   -.2641
                                             375.000   -.2595
                                             376.000   -.2595
                                             377.000   -.2604
                                             378.000   -.2639
                                             379.000   -.2719
                                             380.000   -.2703
                                             381.000   -.2558

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG35)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.300 BETA (1) =   .009   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4119
                                                 370.000   -.4000
                                                 371.000   -.4242
                                                 372.000   -.4699
                                                 373.000   .0000
                                                 374.000   -.4182
                                                 375.000   -.4292
                                                 376.000   -.4118
                                                 377.000   -.4284
                                                 378.000   -.4181
                                                 379.000   -.3680
                                                 380.000   -.4050
                                                 381.000   -.4175

ALPHA (2) = -.390 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4782
                                                 370.000   -.4355
                                                 371.000   -.4726
                                                 372.000   -.4875
                                                 373.000   .0000
                                                 374.000   -.4597
                                                 375.000   -.4758
                                                 376.000   -.4559
                                                 377.000   -.4766
                                                 378.000   -.4664
                                                 379.000   -.4283
                                                 380.000   -.4446
                                                 381.000   -.4716

ALPHA (2) = -.384 BETA (2) =   .012   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4146
                                                 370.000   -.3975
                                                 371.000   -.4246
                                                 372.000   -.4669
                                                 373.000   .0000
                                                 374.000   -.4097
                                                 375.000   -.4274
                                                 376.000   -.4034
                                                 377.000   -.4270

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG35)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.304 BETA (2) =   .012   BASE   1.000
                                             TAP NO
                                             378.000   -.4085
                                             379.000   -.3675
                                             380.000   -.3829
                                             381.000   -.3907

ALPHA (2) = -.345 BETA (3) = 4.025   BASE   1.000
                                             TAP NO
                                             369.000   -.4364
                                             370.000   -.4235
                                             371.000   -.4609
                                             372.000   -.4586
                                             373.000   .0000
                                             374.000   -.4516
                                             375.000   -.4599
                                             376.000   -.4467
                                             377.000   -.4495
                                             378.000   -.4403
                                             379.000   -.4295
                                             380.000   -.4378
                                             381.000   -.4473

ALPHA (3) = 3.903 BETA (1) = .006   BASE   1.000
                                             TAP NO
                                             369.000   -.3585
                                             370.000   -.3518
                                             371.000   -.3847
                                             372.000   -.4021
                                             373.000   .0000
                                             374.000   -.3729
                                             375.000   -.3908
                                             376.000   -.3763
                                             377.000   -.3840
                                             378.000   -.3715
                                             379.000   -.3433
                                             380.000   -.3737
                                             381.000   -.3792

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG36)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.000 BETA (1) =   .003   BASE   1.000
                                                TAP NO
                                                369.000   -.3912
                                                370.000   -.4443
                                                371.000   -.4947
                                                372.000   -.4756
                                                373.000   .0000
                                                374.000   -.4573
                                                375.000   -.4649
                                                376.000   -.4715
                                                377.000   -.4821
                                                378.000   -.4608
                                                379.000   -.4153
                                                380.000   -.4478
                                                381.000   -.4608

ALPHA (2) = -.542 BETA (1) = -4.000   BASE   1.000
                                                TAP NO
                                                369.000   -.4325
                                                370.000   -.4773
                                                371.000   -.5301
                                                372.000   -.4992
                                                373.000   .0000
                                                374.000   -.4950
                                                375.000   -.5034
                                                376.000   -.4894
                                                377.000   -.5152
                                                378.000   -.4858
                                                379.000   -.5005
                                                380.000   -.4784
                                                381.000   -.4992

ALPHA (2) = -.318 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                369.000   -.3682
                                                370.000   -.4059
                                                371.000   -.4643
                                                372.000   -.4440
                                                373.000   .0000
                                                374.000   -.4269
                                                375.000   -.4345
                                                376.000   -.4314
                                                377.000   -.4451

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG36)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.318 BETA (2) =   .012   BASE   1.000
                                                 TAP NO
                                                 378.000   -.4268
                                                 379.000   -.3961
                                                 380.000   -.4117
                                                 381.000   -.4280

ALPHA (2) = -.418 BETA (3) = 4.031   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4605
                                                 370.000   -.4798
                                                 371.000   -.5132
                                                 372.000   -.4959
                                                 373.000   .0000
                                                 374.000   -.4924
                                                 375.000   -.4959
                                                 376.000   -.4946
                                                 377.000   -.5031
                                                 378.000   -.4909
                                                 379.000   -.4712
                                                 380.000   -.4625
                                                 381.000   -.4929

ALPHA (3) = 3.717 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.4175
                                                 370.000   -.4484
                                                 371.000   -.5198
                                                 372.000   -.5008
                                                 373.000   .0000
                                                 374.000   -.4782
                                                 375.000   -.5001
                                                 376.000   -.4801
                                                 377.000   -.4989
                                                 378.000   -.4786
                                                 379.000   -.4600
                                                 380.000   -.4621
                                                 381.000   -.4791

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG37)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.140 BETA (1) =   .006   BASE   1.000
                                               TAP NO
                                               369.000   -.2937
                                               370.000   -.3562
                                               371.000   -.3755
                                               372.000   -.3642
                                               373.000   .0000
                                               374.000   -.3547
                                               375.000   -.3615
                                               376.000   -.3649
                                               377.000   -.3730
                                               378.000   -.3550
                                               379.000   -.3137
                                               380.000   -.3281
                                               381.000   -.3540

ALPHA (2) = -.414 BETA (1) = -4.003   BASE   1.000
                                               TAP NO.
                                               369.000   -.3156
                                               370.000   -.3650
                                               371.000   -.4017
                                               372.000   -.3848
                                               373.000   .0000
                                               374.000   -.3748
                                               375.000   -.3856
                                               376.000   -.3655
                                               377.000   -.3911
                                               378.000   -.3634
                                               379.000   -.3713
                                               380.000   -.3476
                                               381.000   -.3507

ALPHA (2) = -.459 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               369.000   -.2947
                                               370.000   -.3419
                                               371.000   -.3903
                                               372.000   -.3752
                                               373.000   .0000
                                               374.000   -.3531
                                               375.000   -.3613
                                               376.000   -.3539
                                               377.000   -.3722

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG37)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.459 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 378.000   -.3522
                                                 379.000   -.3155
                                                 380.000   -.3308
                                                 381.000   -.3504

ALPHA (2) = -.468 BETA (3) = 4.028   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3447
                                                 370.000   -.3626
                                                 371.000   -.3837
                                                 372.000   -.3895
                                                 373.000   .0000
                                                 374.000   -.3728
                                                 375.000   -.3778
                                                 376.000   -.3777
                                                 377.000   -.3824
                                                 378.000   -.3721
                                                 379.000   -.3435
                                                 380.000   -.3544
                                                 381.000   -.3644

ALPHA (3) = 3.864 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3198
                                                 370.000   -.3495
                                                 371.000   -.3943
                                                 372.000   -.3980
                                                 373.000   .0000
                                                 374.000   -.3802
                                                 375.000   -.3951
                                                 376.000   -.3693
                                                 377.000   -.3943
                                                 378.000   -.3725
                                                 379.000   -.3511
                                                 380.000   -.3492
                                                 381.000   -.3666

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ORB BASE   (REUG38)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .005   BASE   1.000
                                                TAP NO
                                                369.000   -.2082
                                                370.000   -.2755
                                                371.000   -.2681
                                                372.000   -.2836
                                                373.000   .0000
                                                374.000   -.2709
                                                375.000   -.2785
                                                376.000   -.2650
                                                377.000   -.2836
                                                378.000   -.2678
                                                379.000   -.2376
                                                380.000   -.2487
                                                381.000   -.2633

ALPHA (2) = -.387 BETA (1) = -4.000   BASE   1.000
                                                TAP NO
                                                369.000   -.2272
                                                370.000   -.2592
                                                371.000   -.3026
                                                372.000   -.2757
                                                373.000   .0000
                                                374.000   -.2713
                                                375.000   -.2761
                                                376.000   -.2794
                                                377.000   -.2878
                                                378.000   -.2735
                                                379.000   -.2588
                                                380.000   -.2586
                                                381.000   -.2496

ALPHA (2) = -.318 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                369.000   -.2125
                                                370.000   -.2582
                                                371.000   -.2772
                                                372.000   -.2939
                                                373.000   .0000
                                                374.000   -.2667
                                                375.000   -.2799
                                                376.000   -.2613
                                                377.000   -.2771

ARC11-014IA19 OTS+STRUT SRB-NOM MFS-NOM ORB BASE   (REUG38)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.318 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                378.000   -.2610
                                                379.000   -.2416
                                                380.000   -.2452
                                                381.000   -.2574

ALPHA (2) = -.354 BETA (3) = 4.031   BASE   1.000
                                                TAP NO
                                                369.000   -.2480
                                                370.000   -.2689
                                                371.000   -.2942
                                                372.000   -.3005
                                                373.000   .0000
                                                374.000   -.2808
                                                375.000   -.2850
                                                376.000   -.2810
                                                377.000   -.2856
                                                378.000   -.2745
                                                379.000   -.2499
                                                380.000   -.2648
                                                381.000   -.2604

ALPHA (3) = 3.939 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                369.000   -.2340
                                                370.000   -.2904
                                                371.000   -.2906
                                                372.000   -.2944
                                                373.000   .0000
                                                374.000   -.2695
                                                375.000   -.2921
                                                376.000   -.2654
                                                377.000   -.2864
                                                378.000   -.2621
                                                379.000   -.2482
                                                380.000   -.2463
                                                381.000   -.2607

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG39)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.139   BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2471
                                                 370.000   -.2384
                                                 371.000   -.2487
                                                 372.000   -.2456
                                                 373.000   -.2247
                                                 374.000   -.2468
                                                 375.000   -.2480
                                                 376.000   -.2506
                                                 377.000   -.2405
                                                 378.000   .0000
                                                 379.000   -.2608
                                                 380.000   -.2495
                                                 381.000   .0000

ALPHA (2) = -4.032   BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2217
                                                 370.000   -.2118
                                                 371.000   -.2233
                                                 372.000   -.2253
                                                 373.000   -.2080
                                                 374.000   -.2275
                                                 375.000   -.2198
                                                 376.000   -.2277
                                                 377.000   -.2273
                                                 378.000   .0000
                                                 379.000   -.2271
                                                 380.000   -.2335
                                                 381.000   .0000

ALPHA (3) = -.226 .BETA (1) = -4.003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2329
                                                 370.000   -.2167
                                                 371.000   -.2148
                                                 372.000   -.2214
                                                 373.000   -.2110
                                                 374.000   -.2258
                                                 375.000   -.2212
                                                 376.000   -.2232
                                                 377.000   -.2198

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG39)

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.226 BETA (1) = -4.003   BASE   1.000
                                              TAP NO
                                              378.000   .0000
                                              379.000   -.2340
                                              380.000   -.2292
                                              381.000   .0000

ALPHA (3) = -.249 BETA (2) =   .012   BASE   1.000
                                              TAP NO
                                              369.000   -.2078
                                              370.000   -.2008
                                              371.000   -.2036
                                              372.000   -.2054
                                              373.000   -.1838
                                              374.000   -.2082
                                              375.000   -.2010
                                              376.000   -.2098
                                              377.000   -.2030
                                              378.000   .0000
                                              379.000   -.2166
                                              380.000   -.2106
                                              381.000   .0000

ALPHA (3) = -.261 BETA (3) = 4.028   BASE   1.000
                                              TAP NO
                                              369.000   -.2310
                                              370.000   -.2151
                                              371.000   -.2177
                                              372.000   -.2129
                                              373.000   -.2127
                                              374.000   -.2247
                                              375.000   -.2229
                                              376.000   -.2247
                                              377.000   -.2231
                                              378.000   .0000
                                              379.000   -.2348
                                              380.000   -.2326
                                              381.000   .0000

ALPHA (4) = 4.038 BETA (1) =   .003   BASE   1.000
                                              TAP NO
                                              369.000   -.2027
                                              370.000   -.2003
                                              371.000   -.1990
                                              372.000   -.2061
                                              373.000   -.1926
                                              374.000   -.2106

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG39)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (4) = 4.032 BETA (1) = .003   BASE   1.000
                                                TAP NO
                                                375.000   -.2049
                                                376.000   -.2083
                                                377.000   -.2083
                                                378.000   .0000
                                                379.000   -.2189
                                                380.000   -.2189
                                                381.000   .0000

ALPHA (5) = 7.920 BETA (1) = .003   BASE   1.000
                                                TAP NO
                                                369.000   -.2186
                                                370.000   -.2074
                                                371.000   -.2072
                                                372.000   -.2052
                                                373.000   -.1909
                                                374.000   -.2137
                                                375.000   -.2129
                                                376.000   -.2169
                                                377.000   -.2083
                                                378.000   .0000
                                                379.000   -.2261
                                                380.000   -.2286
                                                381.000   .0000

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG40)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -7.992 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3060
                                                 370.000   -.3288
                                                 371.000   -.3319
                                                 372.000   -.3285
                                                 373.000   -.2990
                                                 374.000   -.3290
                                                 375.000   -.3202
                                                 376.000   -.3222
                                                 377.000   -.3201
                                                 378.000   .0000
                                                 379.000   -.3295
                                                 380.000   -.3278
                                                 381.000   .0000

ALPHA (2) = -4.080 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3227
                                                 370.000   -.3264
                                                 371.000   -.3327
                                                 372.000   -.3323
                                                 373.000   -.3056
                                                 374.000   -.3286
                                                 375.000   -.3261
                                                 376.000   -.3285
                                                 377.000   -.3237
                                                 378.000   .0000
                                                 379.000   -.3330
                                                 380.000   -.3319
                                                 381.000   .0000

ALPHA (3) = -.225 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3792
                                                 370.000   -.3773
                                                 371.000   -.3661
                                                 372.000   -.3627
                                                 373.000   -.3475
                                                 374.000   -.3729
                                                 375.000   -.3700
                                                 376.000   -.3724
                                                 377.000   -.3570

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ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG40)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.225 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               378.000   .0000
                                               379.000   -.3758
                                               380.000   -.3712
                                               381.000   .0000

ALPHA (3) = -.159 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               369.000   -.3317
                                               370.000   -.3272
                                               371.000   -.3338
                                               372.000   -.3339
                                               373.000   -.3021
                                               374.000   -.3312
                                               375.000   -.3272
                                               376.000   -.3333
                                               377.000   -.3301
                                               378.000   .0000
                                               379.000   -.3358
                                               380.000   -.3342
                                               381.000   .0000

ALPHA (3) = -.312 BETA (3) = 4.028   BASE   1.000
                                               TAP NO
                                               369.000   -.3535
                                               370.000   -.3448
                                               371.000   -.3543
                                               372.000   -.3319
                                               373.000   -.3496
                                               374.000   -.3414
                                               375.000   -.3461
                                               376.000   -.3519
                                               377.000   -.3502
                                               378.000   .0000
                                               379.000   -.3513
                                               380.000   -.3506
                                               381.000   .0000

ALPHA (4) = 3.885 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.3732
                                               370.000   -.3666
                                               371.000   -.3739
                                               372.000   -.3707
                                               373.000   -.3465
                                               374.000   -.3724

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG40)

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (4) = 3.885 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                              375.000   -.3705
                                              376.000   -.3724
                                              377.000   -.3672
                                              378.000   .0000
                                              379.000   -.3767
                                              380.000   -.3714
                                              381.000   .0000

ALPHA (5) = 8.079 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                              369.000   -.4240
                                              370.000   -.4150
                                              371.000   -.4162
                                              372.000   -.4126
                                              373.000   -.3954
                                              374.000   -.4199
                                              375.000   -.4209
                                              376.000   -.4199
                                              377.000   -.4207
                                              378.000   .0000
                                              379.000   -.4276
                                              380.000   -.4239
                                              381.000   .0000

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000 .
SCALE =   .0200

    SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.232 BETA (1) = -.006   BASE   1.000
                                                TAP NO
                                                369.000   -.2512
                                                370.000   -.2988
                                                371.000   -.3021
                                                372.000   -.2738
                                                373.000   -.2611
                                                374.000   -.2954
                                                375.000   -.2895
                                                376.000   -.2889
                                                377.000   -.2876
                                                378.000   .0000
                                                379.000   -.3003
                                                380.000   -.2990
                                                381.000   .0000

ALPHA (2) = -4.090 BETA (1) = -.006   BASE   1.000
                                                TAP NO
                                                369.000   -.2626
                                                370.000   -.2979
                                                371.000   -.2903
                                                372.000   -.2790
                                                373.000   -.2674
                                                374.000   -.2874
                                                375.000   -.2831
                                                376.000   -.2833
                                                377.000   -.2804
                                                378.000   .0000
                                                379.000   -.2898
                                                380.000   -.2990
                                                381.000   .0000

ALPHA (3) = -.243 BETA (1) = -4.000   BASE   1.000
                                                TAP NO
                                                369.000   -.3157
                                                370.000   -.3152
                                                371.000   -.3130
                                                372.000   -.3042
                                                373.000   -.2983
                                                374.000   -.3119
                                                375.000   -.3117
                                                376.000   -.3132
                                                377.000   -.3060

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG41)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.243 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               378.000   .0000
                                               379.000   -.3172
                                               380.000   -.3133
                                               381.000   .0000

ALPHA (3) = -.171 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               369.000   -.2839
                                               370.000   -.2852
                                               371.000   -.2927
                                               372.000   -.2868
                                               373.000   -.2635
                                               374.000   -.2884
                                               375.000   -.2841
                                               376.000   -.2886
                                               377.000   -.2849
                                               378.000   .0000
                                               379.000   -.2918
                                               380.000   -.2903
                                               381.000   .0000

ALPHA (3) = -.171 BETA (3) = 4.025   BASE   1.000
                                               TAP NO
                                               369.000   -.3093
                                               370.000   -.3135
                                               371.000   -.3167
                                               372.000   -.2969
                                               373.000   -.3049
                                               374.000   -.3108
                                               375.000   -.3093
                                               376.000   -.3110
                                               377.000   -.3090
                                               378.000   .0000
                                               379.000   -.3166
                                               380.000   -.3150
                                               381.000   .0000

ALPHA (4) = 7.860 BETA (1) = -.003   BASE   1.000
                                               TAP NO
                                               369.000   -.3422
                                               370.000   -.3500
                                               371.000   -.3485
                                               372.000   -.3430
                                               373.000   -.3187
                                               374.000   -.3521

ARC11-014TA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG41)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (4) = 7.860 BETA (1) = -.003   BASE   1.000
                                                TAP NO
                                                375.000   -.3462
                                                376.000   -.3473
                                                377.000   -.3475
                                                378.000   .0000
                                                379.000   -.3558
                                                380.000   -.3521
                                                381.000   .0000

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG42)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.059 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.2080
                                               370.000   -.2624
                                               371.000   -.2603
                                               372.000   -.2463
                                               373.000   -.2244
                                               374.000   -.2581
                                               375.000   -.2535
                                               376.000   -.2535
                                               377.000   -.2492
                                               378.000   .0000
                                               379.000   -.2606
                                               380.000   -.2564
                                               381.000   .4484

ALPHA (2) = -.183 BETA (1) = -3.997   BASE   1.000
                                               TAP NO
                                               369.000   -.2592
                                               370.000   -.2708
                                               371.000   -.2692
                                               372.000   -.2520
                                               373.000   -.2406
                                               374.000   -.2606
                                               375.000   -.2556
                                               376.000   -.2599
                                               377.000   -.2585
                                               378.000   .0000
                                               379.000   -.2685
                                               380.000   -.2657
                                               381.000   .0000

ALPHA (2) = -.195 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               369.000   -.2147
                                               370.000   -.2516
                                               371.000   -.2514
                                               372.000   -.2375
                                               373.000   -.2187
                                               374.000   -.2489
                                               375.000   -.2448
                                               376.000   -.2420
                                               377.000   -.2439

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG42)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.195 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               378.000   .0000
                                               379.000   -.2523
                                               380.000   -.2492
                                               381.000   .0000

ALPHA (2) =   .027 BETA (3) = 4.028   BASE   1.000
                                               TAP NO
                                               369.000   -.2516
                                               370.000   -.2753
                                               371.000   -.2750
                                               372.000   -.2485
                                               373.000   -.2419
                                               374.000   -.2665
                                               375.000   -.2669
                                               376.000   -.2637
                                               377.000   -.2620
                                               378.000   .0000
                                               379.000   -.2742
                                               380.000   -.2727
                                               381.000   .0000

ALPHA (3) = 3.924 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               369.000   -.2295
                                               370.000   -.2626
                                               371.000   -.2615
                                               372.000   -.2426
                                               373.000   -.2289
                                               374.000   -.2587
                                               375.000   -.2551
                                               376.000   -.2551
                                               377.000   -.2556
                                               378.000   .0000
                                               379.000   -.2640
                                               380.000   -.2592
                                               381.000   .0000

ALPHA (4) = 7.809 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               369.000   -.2626
                                               370.000   -.2758
                                               371.000   -.2763
                                               372.000   -.2636
                                               373.000   -.2482
                                               374.000   -.2735

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG42)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (4) = 7.809 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 375.000   -.2699
                                                 376.000   -.2704
                                                 377.000   -.2685
                                                 378.000   .0000
                                                 379.000   -.2772
                                                 380.000   -.2755
                                                 381.000   .0000

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG43)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.133 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2746
                                                 370.000   -.2670
                                                 371.000   -.2773
                                                 372.000   -.2769
                                                 373.000   -.2550
                                                 374.000   -.2839
                                                 375.000   -.2799
                                                 376.000   -.2852
                                                 377.000   -.2758
                                                 378.000   .0000
                                                 379.000   -.2851
                                                 380.000   -.2856
                                                 381.000   .0000

ALPHA (2) = -4.002 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2369
                                                 370.000   -.2255
                                                 371.000   -.2433
                                                 372.000   -.2449
                                                 373.000   -.2194
                                                 374.000   -.2449
                                                 375.000   -.2401
                                                 376.000   -.2434
                                                 377.000   -.2436
                                                 378.000   .0000
                                                 379.000   -.2438
                                                 380.000   -.2407
                                                 381.000   .0000

ALPHA (3) = -.342 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2413
                                                 370.000   -.2294
                                                 371.000   -.2235
                                                 372.000   -.2331
                                                 373.000   -.2241
                                                 374.000   -.2366
                                                 375.000   -.2350
                                                 376.000   -.2366
                                                 377.000   -.2323

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG43)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.341 BETA (1) = -4.000   BASE   1.000
                                           TAP NO
                                           378.000   .0000
                                           379.000   -.2461
                                           380.000   -.2458
                                           381.000   .0000

ALPHA (3) = -.357 BETA (2) =   .012   BASE   1.000
                                           TAP NO
                                           369.000   -.2207
                                           370.000   -.2197
                                           371.000   -.2232
                                           372.000   -.2184
                                           373.000   -.2083
                                           374.000   -.2331
                                           375.000   -.2269
                                           376.000   -.2266
                                           377.000   -.2236
                                           378.000   .0000
                                           379.000   -.2326
                                           380.000   -.2316
                                           381.000   .0000

ALPHA (3) = -.288 BETA (3) = 4.022   BASE   1.000
                                           TAP NO
                                           369.000   -.2403
                                           370.000   -.2201
                                           371.000   -.2370
                                           372.000   -.2463
                                           373.000   -.2266
                                           374.000   -.2412
                                           375.000   -.2333
                                           376.000   -.2363
                                           377.000   -.2313
                                           378.000   .0000
                                           379.000   -.2445
                                           380.000   -.2417
                                           381.000   .0000

ALPHA (4) = 3.924 BETA (1) =   .000   BASE   1.000
                                           TAP NO
                                           369.000   -.2174
                                           370.000   -.2054
                                           371.000   -.2074
                                           372.000   -.2097
                                           373.000   -.1957
                                           374.000   -.2110

ARC11-014TA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG43)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (4) = 3.924 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                375.000   -.2128
                                                376.000   -.2104
                                                377.000   -.2076
                                                378.000   .0000
                                                379.000   -.2234
                                                380.000   -.2179
                                                381.000   .0000

ALPHA (5) = 7.962 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                369.000   -.2157
                                                370.000   -.2040
                                                371.000   -.2021
                                                372.000   -.2064
                                                373.000   -.1883
                                                374.000   -.2144
                                                375.000   -.2129
                                                376.000   -.2120
                                                377.000   -.2084
                                                378.000   .0000
                                                379.000   -.2158
                                                380.000   -.2116
                                                381.000   .0000

ARC11-014TA19 OTS   · SRB-NOM MPS-OFF ORB BASE   (REUG44)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 Sq.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.106 BETA (1) =   .000 .   BASE   1.000
                                               TAP NO
                                               369.000   -.2858
                                               370.000   -.2914
                                               371.000   -.2982
                                               372.000   -.2963
                                               373.000   -.2740
                                               374.000   -.2941
                                               375.000   -.2878
                                               376.000   -.2935
                                               377.000   -.2886
                                               378.000   .0000
                                               379.000   -.2960
                                               380.000   -.2980
                                               381.000   .0000

ALPHA (2) = -4.938 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.3053
                                               370.000   -.3002
                                               371.000   -.3084
                                               372.000   -.3111
                                               373.000   -.2920
                                               374.000   -.3092
                                               375.000   -.3058
                                               376.000   -.3099
                                               377.000   -.3077
                                               378.000   .0000
                                               379.000   -.3067
                                               380.000   -.3116
                                               381.000   .0000

ALPHA (3) = -.363 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               369.000   -.3648
                                               370.000   -.3553
                                               371.000   -.3491
                                               372.000   -.3500
                                               373.000   -.3426
                                               374.000   -.3552
                                               375.000   -.3512
                                               376.000   -.3592
                                               377.000   -.3525

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG44)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.363 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               378.000   .0000
                                               379.000   -.3580
                                               380.000   -.3554
                                               381.000   .0000

ALPHA (3) = -.363 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               369.000   -.3208
                                               370.000   -.3075
                                               371.000   -.3232
                                               372.000   -.3240
                                               373.000   -.3028
                                               374.000   -.3223
                                               375.000   -.3150
                                               376.000   -.3210
                                               377.000   -.3193
                                               378.000   .0000
                                               379.000   -.3239
                                               380.000   -.3232
                                               381.000   .0000

ALPHA (3) = -.399 BETA (3) = 4.022   BASE   1.000
                                               TAP NO
                                               369.000   -.3371
                                               370.000   -.3242
                                               371.000   -.3302
                                               372.000   -.3218
                                               373.000   -.3210
                                               374.000   -.3278
                                               375.000   -.3289
                                               376.000   -.3321
                                               377.000   -.3251
                                               378.000   .0000
                                               379.000   -.3328
                                               380.000   -.3309
                                               381.000   .0000

ALPHA (4) = 3.888 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.3698
                                               370.000   -.3563
                                               371.000   -.3701
                                               372.000   -.3732
                                               373.000   -.3508
                                               374.000   -.3694

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG44)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (4) = 3.888 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               375.000   -.3662
                                               376.000   -.3733
                                               377.000   -.3699
                                               378.000   .0000
                                               379.000   -.3745
                                               380.000   -.3742
                                               381.000   .0000

ALPHA (5) = 7.977 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.3969
                                               370.000   -.3842
                                               371.000   -.3974
                                               372.000   -.4052
                                               373.000   -.3845
                                               374.000   -.4000
                                               375.000   -.3971
                                               376.000   -.4037
                                               377.000   -.3982
                                               378.000   .0000
                                               379.000   -.4028
                                               380.000   -.4015
                                               381.000   .0000

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG45)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.244 BETA (1) = -.009   BASE   1.000
                                              TAP NO
                                              369.000   -.2193
                                              370.000   -.2369
                                              371.000   -.2394
                                              372.000   -.2291
                                              373.000   -.2138
                                              374.000   -.2376
                                              375.000   -.2314
                                              376.000   -.2322
                                              377.000   -.2288
                                              378.000   .0000
                                              379.000   -.2375
                                              380.000   -.2375
                                              381.000   .0000

ALPHA (2) = -3.936 BETA (1) = -.009   BASE   1.000
                                              TAP NO
                                              369.000   -.2328
                                              370.000   -.2312
                                              371.000   -.2363
                                              372.000   -.2400
                                              373.000   -.2249
                                              374.000   -.2361
                                              375.000   -.2320
                                              376.000   -.2363
                                              377.000   -.2320
                                              378.000   .0000
                                              379.000   -.2357
                                              380.000   -.2392
                                              381.000   .0000

ALPHA (3) = -.309 BETA (1) = -4.000   BASE   1.000
                                              TAP NO
                                              369.000   -.2589
                                              370.000   -.2507
                                              371.000   -.2467
                                              372.000   -.2400
                                              373.000   -.2432
                                              374.000   -.2499
                                              375.000   -.2457
                                              376.000   -.2516
                                              377.000   -.2492

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG45)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.304 BETA (1) = -4.000   BASE   1.000
                                            TAP NO
                                            378.000   .0000
                                            379.000   -.2529
                                            380.000   -.2513
                                            381.000   .0000

ALPHA (3) = -.365 BETA (2) =   .009   BASE   1.000
                                            TAP NO
                                            369.000   -.2375
                                            370.000   -.2228
                                            371.000   -.2379
                                            372.000   -.2401
                                            373.000   -.2232
                                            374.000   -.2348
                                            375.000   -.2327
                                            376.000   -.2371
                                            377.000   -.2347
                                            378.000   .0000
                                            379.000   -.2375
                                            380.000   -.2398
                                            381.000   .0000

ALPHA (3) = -.405 BETA (3) = 4.025   BASE   1.000
                                            TAP NO
                                            369.000   -.2529
                                            370.000   -.2462
                                            371.000   -.2478
                                            372.000   -.2446
                                            373.000   -.2293
                                            374.000   -.2460
                                            375.000   -.2442
                                            376.000   -.2499
                                            377.000   -.2470
                                            378.000   .0000
                                            379.000   -.2558
                                            380.000   -.2514
                                            381.000   .0000

ALPHA (4) = 3.873 BETA (1) =   .000   BASE   1.000
                                            TAP NO
                                            369.000   -.2530
                                            370.000   -.2442
                                            371.000   -.2539
                                            372.000   -.2653
                                            373.000   -.2408
                                            374.000   -.2557

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (4) = 3.873 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               375.000   -.2528
                                               376.000   -.2591
                                               377.000   -.2560
                                               378.000   .0000
                                               379.000   -.2619
                                               380.000   -.2592
                                               381.000   .0000

ALPHA (5) = 7.989 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.2846
                                               370.000   -.2782
                                               371.000   -.2842
                                               372.000   -.2909
                                               373.000   -.2692
                                               374.000   -.2880
                                               375.000   -.2835
                                               376.000   -.2888
                                               377.000   -.2859
                                               378.000   .0000
                                               379.000   -.2934
                                               380.000   -.2992
                                               381.000   .0000

ARC11-014IA19 OTS   SRB-NON MPS-OFF ORB BASE   (REUG46)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.175 BETA (1) =   .003   BASE   1.000
                                                  TAP NO
                                                  369.000   -.1598
                                                  370.000   -.1794
                                                  371.000   -.1811
                                                  372.000   -.1711
                                                  373.000   -.1521
                                                  374.000   -.1783
                                                  375.000   -.1773
                                                  376.000   -.1758
                                                  377.000   -.1744
                                                  378.000   .0000
                                                  379.000   -.1763
                                                  380.000   -.1758
                                                  381.000   .0000

ALPHA (2) = -4.002 BETA (1) =   .003   BASE   1.000
                                                  TAP NO
                                                  369.000   -.1712
                                                  370.000   -.1817
                                                  371.000   -.1837
                                                  372.000   -.1825
                                                  373.000   -.1669
                                                  374.000   -.1849
                                                  375.000   -.1784
                                                  376.000   -.1804
                                                  377.000   -.1792
                                                  378.000   .0000
                                                  379.000   -.1814
                                                  380.000   -.1814
                                                  381.000   .0000

ALPHA (3) = -.348 BETA (1) = -4.000   BASE   1.000
                                                  TAP NO
                                                  369.000   -.1945
                                                  370.000   -.1906
                                                  371.000   -.1893
                                                  372.000   -.1642
                                                  373.000   -.1784
                                                  374.000   -.1848
                                                  375.000   -.1945
                                                  376.000   -.1858
                                                  377.000   -.1865

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG46)

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.348 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 378.000   .0000
                                                 379.000   -.1901
                                                 380.000   -.1889
                                                 381.000   .0000

ALPHA (3) = -.369 BETA (2) =   .016   BASE   1.000
                                                 TAP NO
                                                 369.000   -.1786
                                                 370.000   -.1751
                                                 371.000   -.1804
                                                 372.000   -.1807
                                                 373.000   -.1645
                                                 374.000   -.1818
                                                 375.000   -.1765
                                                 376.000   -.1794
                                                 377.000   -.1761
                                                 378.000   .0000
                                                 379.000   -.1834
                                                 380.000   -.1828
                                                 381.000   .0000

ALPHA (3) = -.360 BETA (3) = 4.028   BASE   1.000
                                                 TAP NO
                                                 369.000   -.1933
                                                 370.000   -.1906
                                                 371.000   -.1939
                                                 372.000   -.1900
                                                 373.000   -.1546
                                                 374.000   -.1896
                                                 375.000   -.1845
                                                 376.000   -.1861
                                                 377.000   -.1838
                                                 378.000   .0000
                                                 379.000   -.1958
                                                 380.000   -.1916
                                                 381.000   .0000

ALPHA (4) = 3.900 BETA (1) =   .006   BASE   1.000
                                                 TAP NO
                                                 369.000   -.1881
                                                 370.000   -.1859
                                                 371.000   -.1875
                                                 372.000   -.1907
                                                 373.000   -.1729
                                                 374.000   -.1972

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG46)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (4) = 3.900 BETA (1) =   .006   BASE   1.000
                                                TAP NO
                                              375.000   -.1851
                                              376.000   -.1867
                                              377.000   -.1836
                                              378.000   .0000
                                              379.000   -.1898
                                              380.000   -.1898
                                              381.000   .0000

ALPHA (5) = 7.653 BETA (1) =   .006   BASE   1.000
                                                TAP NO
                                              369.000   -.2010
                                              370.000   -.1907
                                              371.000   -.2034
                                              372.000   -.2138
                                              373.000   -.1955
                                              374.000   -.2041
                                              375.000   -.2034
                                              376.000   -.2057
                                              377.000   -.2035
                                              378.000   .0000
                                              379.000   -.2079
                                              380.000   -.2068
                                              381.000   .0000

                        REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

  SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.050 BETA (1) = -.003   BASE   1.000
                                              TAP NO
                                              369.000   -.2175
                                              370.000   -.2803
                                              371.000   -.2789
                                              372.000   -.2632
                                              373.000   -.2321
                                              374.000   -.2735
                                              375.000   -.2710
                                              376.000   -.2686
                                              377.000   -.2686
                                              378.000   .0000
                                              379.000   -.2806
                                              380.000   -.2736
                                              381.000   .0000

ALPHA (2) = -.150 BETA (1) = -4.000   BASE   1.000
                                              TAP NO
                                              369.000   -.2637
                                              370.000   -.2766
                                              371.000   -.2743
                                              372.000   -.2520
                                              373.000   -.2472
                                              374.000   -.2749
                                              375.000   -.2704
                                              376.000   -.2712
                                              377.000   -.2662
                                              378.000   .0000
                                              379.000   -.2771
                                              380.000   -.2745
                                              381.000   .0000

ALPHA (2) = -.129 BETA (2) =   .009   BASE   1.000
                                              TAP NO
                                              369.000   -.2242
                                              370.000   -.2680
                                              371.000   -.2681
                                              372.000   -.2524
                                              373.000   -.2273
                                              374.000   -.2641
                                              375.000   -.2614
                                              376.000   -.2603
                                              377.000   -.2592

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG47)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.129 BETA (2) =   .009   BASE   1.000
                                             TAP NO
                                             378.000   .0000
                                             379.000   -.2695
                                             380.000   -.2667
                                             381.000   .0000

ALPHA (2) = -.234 BETA (3) = 4.028   BASE   1.000
                                             TAP NO
                                             369.000   -.2572
                                             370.000   -.2886
                                             371.000   -.2881
                                             372.000   -.2585
                                             373.000   -.2564
                                             374.000   -.2797
                                             375.000   -.2820
                                             376.000   -.2797
                                             377.000   -.2778
                                             378.000   .0000
                                             379.000   -.2920
                                             380.000   -.2825
                                             381.000   .0000

ALPHA (3) = 3.867 BETA (1) =   .009   BASE   1.000
                                             TAP NO
                                             369.000   -.2353
                                             370.000   -.2796
                                             371.000   -.2801
                                             372.000   -.2544
                                             373.000   -.2417
                                             374.000   -.2753
                                             375.000   -.2742
                                             376.000   -.2722
                                             377.000   -.2689
                                             378.000   .0000
                                             379.000   -.2809
                                             380.000   -.2776
                                             381.000   .0000

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG48)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (.1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.143 BETA (1) = -.003   BASE   1.000
                                              TAP NO
                                              369.000   -.1806
                                              370.000   -.1980
                                              371.000   -.1999
                                              372.000   -.1941
                                              373.000   -.1775
                                              374.000   -.1986
                                              375.000   -.1956
                                              376.000   -.1972
                                              377.000   -.1933
                                              378.000   .0000
                                              379.000   -.2003
                                              380.000   -.1986
                                              381.000   .0000

ALPHA (2) = -.243 BETA (1) = -4.003   BASE   1.000
                                              TAP NO
                                              369.000   -.2058
                                              370.000   -.1991
                                              371.000   -.2010
                                              372.000   -.1721
                                              373.000   -.1950
                                              374.000   -.1935
                                              375.000   -.1935
                                              376.000   -.1972
                                              377.000   -.1957
                                              378.000   .0000
                                              379.000   -.2025
                                              380.000   -.2013
                                              381.000   .0000

ALPHA (2) = -.324 BETA (2) =   .009   BASE   1.000
                                              TAP NO
                                              369.000   -.1917
                                              370.000   -.1934
                                              371.000   -.1979
                                              372.000   -.1937
                                              373.000   -.1754
                                              374.000   -.1982
                                              375.000   -.1956
                                              376.000   -.1935
                                              377.000   -.1932

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG48)

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.324 BETA (2) =   .009   BASE   1.000
                                             TAP NO
                                             378.000   .0000
                                             379.000   -.2018
                                             380.000   -.1990
                                             381.000   .0000

ALPHA (2) = -.435 BETA (3) = 4.025   BASE   1.000
                                             TAP NO
                                             369.000   -.2045
                                             370.000   -.2052
                                             371.000   -.2035
                                             372.000   -.1998
                                             373.000   -.1618
                                             374.000   -.1987
                                             375.000   -.1984
                                             376.000   -.1979
                                             377.000   -.1934
                                             378.000   .0000
                                             379.000   -.2057
                                             380.000   -.2043
                                             381.000   .0000

ALPHA (3) = 4.032 BETA (1) = -.006   BASE   1.000
                                             TAP NO
                                             369.000   -.2053
                                             370.000   -.2031
                                             371.000   -.2068
                                             372.000   -.2037
                                             373.000   -.1791
                                             374.000   -.2015
                                             375.000   -.2026
                                             376.000   -.2009
                                             377.000   -.2034
                                             378.000   .0000
                                             379.000   -.2093
                                             380.000   -.2065
                                             381.000   .0000

ARC11-014TA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REU049)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.041 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.2193
                                               370.000   -.2169
                                               371.000   -.2217
                                               372.000   -.2195
                                               373.000   -.2051
                                               374.000   -.2301
                                               375.000   -.2250
                                               376.000   -.2246
                                               377.000   -.2192
                                               378.000   .0000
                                               379.000   -.2343
                                               380.000   -.2325
                                               381.000   .0000

ALPHA (2) = -.198 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               369.000   -.2353
                                               370.000   -.2150
                                               371.000   -.2146
                                               372.000   -.2116
                                               373.000   -.2192
                                               374.000   -.2293
                                               375.000   -.2263
                                               376.000   -.2241
                                               377.000   -.2156
                                               378.000   .0000
                                               379.000   -.2288
                                               380.000   -.2258
                                               381.000   .0000

ALPHA (2) = -.168 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               369.000   -.2172
                                               370.000   -.2121
                                               371.000   -.2198
                                               372.000   -.2146
                                               373.000   -.2081
                                               374.000   -.2206
                                               375.000   -.2186
                                               376.000   -.2254
                                               377.000   -.2193

ARC11-014IA19 OTS   SRB-OFF NPS-OFF ORB BASE   (REUG49)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.162 BETA (2) = .009

BASE	1.000
TAP NO	
378.000	.0000
379.000	-.2295
380.000	-.2305
381.000	.0000

ALPHA (2) = -.285 BETA (3) = 4.022

BASE	1.000
TAP NO	
369.000	-.2271
370.000	-.2085
371.000	-.2129
372.000	-.2300
373.000	-.2112
374.000	-.2276
375.000	-.2216
376.000	-.2252
377.000	-.2256
378.000	.0000
379.000	-.2328
380.000	-.2340
381.000	.0000

ALPHA (3) = 3.829 BETA (1) = -.003

BASE	1.000
TAP NO	
369.000	-.2158
370.000	-.2074
371.000	-.2026
372.000	-.2048
373.000	-.1829
374.000	-.2108
375.000	-.2094
376.000	-.2134
377.000	-.2084
378.000	.0000
379.000	-.2175
380.000	-.2150
381.000	.0000

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG5D)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) =   .003   BASE   1.000
                                              TAP NO
                                              369.000   -.3407
                                              370.000   -.3486
                                              371.000   -.3556
                                              372.000   -.3500
                                              373.000   -.3198
                                              374.000   -.3512
                                              375.000   -.3464
                                              376.000   -.3464
                                              377.000   -.3440
                                              378.000   .0000
                                              379.000   -.3510
                                              380.000   -.3498
                                              381.000   .0000

ALPHA (2) = -.162 BETA (1) = -4.000   BASE   1.000
                                              TAP NO
                                              369.000   -.3946
                                              370.000   -.3845
                                              371.000   -.3844
                                              372.000   -.3736
                                              373.000   -.3534
                                              374.000   -.3854
                                              375.000   -.3859
                                              376.000   -.3844
                                              377.000   -.3794
                                              378.000   .0000
                                              379.000   -.3957
                                              380.000   -.3845
                                              381.000   .0000

ALPHA (2) = -.141 BETA (2) =   .012   BASE   1.000
                                              TAP NO
                                              369.000   -.3383
                                              370.000   -.3373
                                              371.000   -.3403
                                              372.000   -.3357
                                              373.000   -.3074
                                              374.000   -.3368
                                              375.000   -.3363
                                              376.000   -.3368
                                              377.000   -.3331

ARC11-014IA19 OTS'   SRB-OFF MPS-OFF ORB BASE   (REUG50)

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.141 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               378.000   .0000
                                               379.000   -.3415
                                               380.000   -.3409
                                               381.000   .0000

ALPHA (2) = -.234 BETA (3) = 4.025   BASE   1.000
                                               TAP NO
                                               369.000   -.3792
                                               370.000   -.3684
                                               371.000   -.3731
                                               372.000   -.3490
                                               373.000   -.3629
                                               374.000   -.3656
                                               375.000   -.3678
                                               376.000   -.3699
                                               377.000   -.3694
                                               378.000   .0000
                                               379.000   -.3728
                                               380.000   -.3701
                                               381.000   .0000

ALPHA (3) = 3.879 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.3847
                                               370.000   -.3783
                                               371.000   -.3839
                                               372.000   -.3895
                                               373.000   -.3510
                                               374.000   -.3827
                                               375.000   -.3817
                                               376.000   -.3841
                                               377.000   -.3766
                                               378.000   .0000
                                               379.000   -.3915
                                               380.000   -.3856
                                               381.000   .0000

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG51)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 Sq.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.008 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                369.000   -.2690
                                                370.000   -.2999
                                                371.000   -.2995
                                                372.000   -.2863
                                                373.000   -.2704
                                                374.000   -.2956
                                                375.000   -.2899
                                                376.000   -.2901
                                                377.000   -.2867
                                                378.000   .0000
                                                379.000   -.2962
                                                380.000   -.2959
                                                381.000   .0000

ALPHA (2) = -.138 BETA (1) = -4.003   BASE   1.000
                                                TAP NO
                                                369.000   -.3123
                                                370.000   -.3172
                                                371.000   -.3152
                                                372.000   -.3036
                                                373.000   -.2831
                                                374.000   -.3113
                                                375.000   -.3107
                                                376.000   -.3120
                                                377.000   -.3067
                                                378.000   .0000
                                                379.000   -.3196
                                                380.000   -.3137
                                                381.000   .0000

ALPHA (2) = -.225 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                369.000   -.2887
                                                370.000   -.3006
                                                371.000   -.3062
                                                372.000   -.2968
                                                373.000   -.2727
                                                374.000   -.3006
                                                375.000   -.2976
                                                376.000   -.2990
                                                377.000   -.2971

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG51)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.221 BETA (2) =   .009   BASE   1.000
                                             TAP NO
                                             378.000   .0000
                                             379.000   -.3054
                                             390.000   -.3039
                                             381.000   .0000

ALPHA (2) = -.252 BETA (3) = 4.022   BASE   1.000
                                             TAP NO
                                             369.000   -.3110
                                             370.000   -.3161
                                             371.000   -.3152
                                             372.000   -.2928
                                             373.000   -.2961
                                             374.000   -.3053
                                             375.000   -.3074
                                             376.000   -.3093
                                             377.000   -.3061
                                             378.000   .0000
                                             379.000   -.3139
                                             380.000   -.3112
                                             381.000   .0000

ALPHA (3) = 3.864 BETA (1) =   .000   BASE   1.000
                                             TAP NO
                                             369.000   -.3174
                                             370.000   -.3303
                                             371.000   -.3361
                                             372.000   -.3211
                                             373.000   -.2982
                                             374.000   -.3279
                                             375.000   -.3246
                                             376.000   -.3273
                                             377.000   -.3238
                                             378.000   .0000
                                             379.000   -.3374
                                             380.000   -.3351
                                             381.000   .0000

ARC11-014IA19 OTS   SRB-OFF WPS-OFF ORB BASE   (REUG52)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.990 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                369.000   -.2129
                                                370.000   -.2704
                                                371.000   -.2691
                                                372.000   -.2590
                                                373.000   -.2278
                                                374.000   -.2648
                                                375.000   -.2621
                                                376.000   -.2595
                                                377.000   -.2612
                                                378.000   .0000
                                                379.000   -.2708
                                                380.000   -.2645
                                                381.000   .0000

ALPHA (2) = -.195 BETA (1) = -4.003   BASE   1.000
                                                TAP NO
                                                369.000   -.2592
                                                370.000   -.2812
                                                371.000   -.2800
                                                372.000   -.2570
                                                373.000   -.2496
                                                374.000   -.2744
                                                375.000   -.2708
                                                376.000   -.2747
                                                377.000   -.2733
                                                378.000   .0000
                                                379.000   -.2818
                                                380.000   -.2792
                                                381.000   .0000

ALPHA (2) = -.198 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                369.000   -.2250
                                                370.000   -.2702
                                                371.000   -.2692
                                                372.000   -.2521
                                                373.000   -.2292
                                                374.000   -.2627
                                                375.000   -.2594
                                                376.000   -.2521
                                                377.000   -.2590

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ORB BASE   (REUG52)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.198 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                378.000   .0000
                                                379.000   -.2692
                                                380.000   -.2674
                                                381.000   .0000

ALPHA (2) = -.186 BETA (3) = 4.022   BASE   1.000
                                                TAP NO
                                                369.000   -.2572
                                                370.000   -.2910
                                                371.000   -.2907
                                                372.000   -.2580
                                                373.000   -.2566
                                                374.000   -.2760
                                                375.000   -.2804
                                                376.000   -.2796
                                                377.000   -.2740
                                                378.000   .0000
                                                379.000   -.2871
                                                380.000   -.2852
                                                381.000   .0000

ALPHA (3) = 3.960 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                369.000   -.2326
                                                370.000   -.2778
                                                371.000   -.2762
                                                372.000   -.2532
                                                373.000   -.2373
                                                374.000   -.2718
                                                375.000   -.2697
                                                376.000   -.2689
                                                377.000   -.2658
                                                378.000   .0000
                                                379.000   -.2778
                                                380.000   -.2756
                                                381.000   .0000

ARC11-014IA19 OTS   SRB-NOM MFS-OFF ORB BASE   (REUG53)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.179 BETA (1) = -.003   BASE   1.000
                                              TAP NO
                                              369.000   -.2250
                                              370.000   -.2183
                                              371.000   -.2272
                                              372.000   -.2320
                                              373.000   -.2223
                                              374.000   -.2352
                                              375.000   -.2359
                                              376.000   -.2425
                                              377.000   -.2421
                                              378.000   .0000
                                              379.000   -.2485
                                              380.000   -.2534
                                              381.000   .0000

ALPHA (2) = -.339 BETA (1) = -3.997   BASE   1.000
                                              TAP NO
                                              369.000   -.2444
                                              370.000   -.2294
                                              371.000   -.2247
                                              372.000   -.2271
                                              373.000   -.2301
                                              374.000   -.2386
                                              375.000   -.2324
                                              376.000   -.2376
                                              377.000   -.2296
                                              378.000   .0000
                                              379.000   -.2493
                                              380.000   -.2401
                                              381.000   .0000

ALPHA (2) = -.360 BETA (2) =   .012   BASE   1.000
                                              TAP NO
                                              369.000   -.2230
                                              370.000   -.2156
                                              371.000   -.2184
                                              372.000   -.2130
                                              373.000   -.2063
                                              374.000   -.2263
                                              375.000   -.2206
                                              376.000   -.2190
                                              377.000   -.2152

ARC11-014IA19 OTS   SRB-NOM MFS-OFF ORB BASE   (REUG53)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.360 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               378.000   .0000
                                               379.000   -.2282
                                               380.000   -.2242
                                               381.000   .0000

ALPHA (2) = -.411 BETA (3) = 4.022   BASE   1.000
                                               TAP NO
                                               369.000   -.2393
                                               370.000   -.2255
                                               371.000   -.2303
                                               372.000   -.2425
                                               373.000   -.2210
                                               374.000   -.2449
                                               375.000   -.2365
                                               376.000   -.2306
                                               377.000   -.2400
                                               378.000   .0000
                                               379.000   -.2392
                                               380.000   -.2417
                                               381.000   .0000

ALPHA (3) = 3.936 BETA (1) = -.006   BASE   1.000
                                               TAP NO
                                               369.000   -.2142
                                               370.000   -.2138
                                               371.000   -.2154
                                               372.000   -.2060
                                               373.000   -.1971
                                               374.000   -.2116
                                               375.000   -.2116
                                               376.000   -.2128
                                               377.000   -.2125
                                               378.000   .0000
                                               379.000   -.2197
                                               380.000   -.2153
                                               381.000   .0000

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG54)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.148 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3304
                                                 370.000   -.3265
                                                 371.000   -.3380
                                                 372.000   -.3360
                                                 373.000   -.3134
                                                 374.000   -.3304
                                                 375.000   -.3256
                                                 376.000   -.3313
                                                 377.000   -.3275
                                                 378.000   .0000
                                                 379.000   -.3338
                                                 380.000   -.3309
                                                 381.000   .0000

ALPHA (2) = -.315 BETA (1) = -4.003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3652
                                                 370.000   -.3562
                                                 371.000   -.3497
                                                 372.000   -.3457
                                                 373.000   -.3409
                                                 374.000   -.3542
                                                 375.000   -.3523
                                                 376.000   -.3579
                                                 377.000   -.3535
                                                 378.000   .0000
                                                 379.000   -.3649
                                                 380.000   -.3564
                                                 391.000   .0000

ALPHA (2) = -.327 BETA (2) =   .006   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3167
                                                 370.000   -.3052
                                                 371.000   -.3169
                                                 372.000   -.3143
                                                 373.000   -.2996
                                                 374.000   -.3165
                                                 375.000   -.3123
                                                 376.000   -.3172
                                                 377.000   -.3167

ARC11-014IA19 OTS   SRB-NOM NFS-OFF ORB BASE   (REUG54)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.327 BETA (2) =   .006   BASE   1.000
                                             TAP NO
                                             378.000   .0000
                                             379.000   -.3217
                                             380.000   -.3185
                                             381.000   .0000

ALPHA (2) = -.288 BETA (3) = 4.016   BASE   1.000
                                             TAP NO
                                             369.000   -.3484
                                             370.000   -.3367
                                             371.000   -.3371
                                             372.000   -.3361
                                             373.000   -.3244
                                             374.000   -.3384
                                             375.000   -.3378
                                             376.000   -.3415
                                             377.000   -.3366
                                             378.000   .0000
                                             379.000   -.3445
                                             380.000   -.3423
                                             381.000   .0000

ALPHA (3) = 3.915 BETA (1) = -.003   BASE   1.000
                                             TAP NO
                                             369.000   -.3570
                                             370.000   -.3495
                                             371.000   -.3556
                                             372.000   -.3566
                                             373.000   -.3326
                                             374.000   -.3558
                                             375.000   -.3538
                                             376.000   -.3588
                                             377.000   -.3542
                                             378.000   .0000
                                             379.000   -.3628
                                             380.000   -.3593
                                             381.000   .0000

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG55)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               369.000   -.2434
                                               370.000   -.2482
                                               371.000   -.2526
                                               372.000   -.2534
                                               373.000   -.2375
                                               374.000   -.2513
                                               375.000   -.2478
                                               376.000   -.2489
                                               377.000   -.2465
                                               378.000   .0000
                                               379.000   -.2526
                                               380.000   -.2537
                                               381.000   .0000

ALPHA (2) = -.369 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               369.000   -.2703
                                               370.000   -.2632
                                               371.000   -.2593
                                               372.000   -.2526
                                               373.000   -.2550
                                               374.000   -.2620
                                               375.000   -.2570
                                               376.000   -.2656
                                               377.000   -.2614
                                               378.000   .0000
                                               379.000   -.2676
                                               380.000   -.2651
                                               381.000   .0000

ALPHA (2) = -.304 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               369.000   -.2521
                                               370.000   -.2397
                                               371.000   -.2532
                                               372.000   -.2529
                                               373.000   -.2340
                                               374.000   -.2512
                                               375.000   -.2469
                                               376.000   -.2516
                                               377.000   -.2502

ARC11-014IA19 OTS   SRB-NON MPS-OFF ORB BASE   (REU055)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.309 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               378.000   .0000
                                               379.000   -.2544
                                               380.000   -.2545
                                               381.000   .0000

ALPHA (2) = -.300 BETA (3) = 4.022   BASE   1.000
                                               TAP NO
                                               369.000   -.2681
                                               370.000   -.2569
                                               371.000   -.2534
                                               372.000   -.2600
                                               373.000   -.2448
                                               374.000   -.2624
                                               375.000   -.2611
                                               376.000   -.2622
                                               377.000   -.2552
                                               378.000   .0000
                                               379.000   -.2683
                                               380.000   -.2640
                                               381.000   .0000

ALPHA (3) = 3.966 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               369.000   -.2775
                                               370.000   -.2715
                                               371.000   -.2807
                                               372.000   -.2845
                                               373.000   -.2571
                                               374.000   -.2798
                                               375.000   -.2752
                                               376.000   -.2785
                                               377.000   -.2762
                                               378.000   .0000
                                               379.000   -.2839
                                               380.000   -.2823
                                               381.000   .0000

ARC11-014IA19 OTS   SRB-NOM MFS-OFF ORB BASE   (REUG56)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.071 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.1791
                                                 370.000   -.1954
                                                 371.000   -.1961
                                                 372.000   -.1897
                                                 373.000   -.1720
                                                 374.000   -.1972
                                                 375.000   -.1951
                                                 376.000   -.1949
                                                 377.000   -.1904
                                                 378.000   .0000
                                                 379.000   -.1971
                                                 380.000   -.1986
                                                 381.000   .0000

ALPHA (2) = -.294 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 369.000   -.2039
                                                 370.000   -.2011
                                                 371.000   -.1978
                                                 372.000   -.1668
                                                 373.000   -.1906
                                                 374.000   -.1895
                                                 375.000   -.1904
                                                 376.000   -.1953
                                                 377.000   -.1940
                                                 378.000   .0000
                                                 379.000   -.2004
                                                 380.000   -.2011
                                                 381.000   .0000

ALPHA (2) = -.374 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 369.000   -.1941
                                                 370.000   -.1955
                                                 371.000   -.2032
                                                 372.000   -.1973
                                                 373.000   -.1772
                                                 374.000   -.2026
                                                 375.000   -.2001
                                                 376.000   -.2005
                                                 377.000   -.1993

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ORB BASE   (REUG56)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.375 BETA (2) =   .009   BASE   1.000
                                             TAP NO
                                             378.000   .0000
                                             379.000   -.2074
                                             380.000   -.2075
                                             381.000   .0000

ALPHA (2) = -.425 BETA (3) = 4.028   BASE   1.000
                                             TAP NO
                                             369.000   -.2042
                                             370.000   -.2028
                                             371.000   -.2067
                                             372.000   -.1972
                                             373.000   -.1634
                                             374.000   -.2003
                                             375.000   -.1969
                                             376.000   -.1989
                                             377.000   -.1958
                                             378.000   .0000
                                             379.000   -.2058
                                             380.000   -.2041
                                             381.000   .0000

ALPHA (3) = 3.834 BETA (1) = -.003   BASE   1.000
                                             TAP NO
                                             369.000   -.2057
                                             370.000   -.2071
                                             371.000   -.2112
                                             372.000   -.2071
                                             373.000   -.1828
                                             374.000   -.2045
                                             375.000   -.2042
                                             376.000   -.2054
                                             377.000   -.2000
                                             378.000   .0000
                                             379.000   -.2093
                                             380.000   -.2076
                                             381.000   .0000

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+ORB BASE   (REU657)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.497 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               369.000   -.3186
                                               370.000   -.4069
                                               371.000   -.4096
                                               372.000   -.4075
                                               373.000   -.4136
                                               374.000   -.3623
                                               375.000   -.4109
                                               376.000   -.3374
                                               377.000   -.4017
                                               378.000   -.3702
                                               379.000   -.2988
                                               380.000   -.3002
                                               381.000   -.3190

ALPHA (2) = -.339 BETA (1) = -3.997   BASE   1.000
                                               TAP NO
                                               369.000   -.3788
                                               370.000   -.4138
                                               371.000   -.4293
                                               372.000   -.4151
                                               373.000   -.4288
                                               374.000   -.3920
                                               375.000   -.4235
                                               376.000   -.3524
                                               377.000   -.4196
                                               378.000   -.3911
                                               379.000   -.3495
                                               380.000   -.3236
                                               381.000   -.3463

ALPHA (2) = -.469 BETA (2) =   .019   BASE   1.000
                                               TAP NO
                                               369.000   -.3369
                                               370.000   -.4007
                                               371.000   -.4005
                                               372.000   -.4015
                                               373.000   -.4094
                                               374.000   -.3653
                                               375.000   -.4096
                                               376.000   -.3250
                                               377.000   -.3952

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+ORB BASE   (REU057)

SECTION (1) ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.465 BETA (2) =   .019   BASE   1.000
                                                 TAP NO
                                                 378.000   -.3681
                                                 379.000   -.3097
                                                 380.000   -.2946
                                                 381.000   -.3246

ALPHA (2) = -.435 BETA (3) = 4.031   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3622
                                                 370.000   -.4192
                                                 371.000   -.4041
                                                 372.000   -.4235
                                                 373.000   -.4088
                                                 374.000   -.3850
                                                 375.000   -.4208
                                                 376.000   -.3335
                                                 377.000   -.4071
                                                 378.000   -.3828
                                                 379.000   -.3432
                                                 380.000   -.3000
                                                 381.000   -.3385

ALPHA (3) = 3.696 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3516
                                                 370.000   -.4077
                                                 371.000   -.4068
                                                 372.000   -.4036
                                                 373.000   -.4087
                                                 374.000   -.3801
                                                 375.000   -.4190
                                                 376.000   -.3267
                                                 377.000   -.3927
                                                 378.000   -.3763
                                                 379.000   -.3314
                                                 380.000   -.3054
                                                 381.000   -.3307

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ORB BASE   (REUG58)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB = 8.000   ELV-OB = 4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   = 1.400
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL = 1.000
SCALE =   .0200

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .000   BASE   1.000

TAP NO	
369.000	-.2772
370.000	-.3144
371.000	-.3156
372.000	-.3144
373.000	-.3186
374.000	-.2880
375.000	-.3211
376.000	-.2606
377.000	-.3105
378.000	-.2938
379.000	-.2703
380.000	-.2463
381.000	-.2648

ALPHA (2) = -.342 BETA (1) = 4.028   BASE   1.000

TAP NO	
369.000	-.2981
370.000	-.3284
371.000	-.3092
372.000	-.3276
373.000	-.3111
374.000	-.3015
375.000	-.3250
376.000	-.2651
377.000	-.3105
378.000	-.2921
379.000	-.2776
380.000	-.2555
381.000	-.2736

ARC11-014IA19 OTS+STRUT SRB-NOM MFS-OFF ORB BASE　　　　　　　(REUG59)　(04 FEB 75)

REFERENCE DATA			PARAMETRIC DATA		

SREF = 2690.0000 SQ.FT.　XMRP = 976.0000 IN. XT　　　　ELV-IB = 8.000　ELV-OB = 4.000

LREF = 1290.3000 IN.　　YMRP = .0000 IN. YT　　　　RUDDER = .000　MACH = 1.250

BREF = 1290.3000 IN.　　ZMRP = 400.0000 IN. ZT　　　　GIMBAL = 1.000

SCALE = .0200

SECTION (1)ORBITER BASE　　　　　　DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) = .012　　BASE　1.000

TAP NO	
369.000	-.2561
370.000	-.2456
371.000	-.2511
372.000	-.2585
373.000	-.2463
374.000	-.2548
375.000	-.2492
376.000	-.2500
377.000	-.2478
378.000	-.2471
379.000	-.2550
380.000	-.2550
381.000	-.2597

ALPHA (2) = -.375 BETA (1) = .012　　BASE　1.000

TAP NO	
369.000	-.2562
370.000	-.2328
371.000	-.2484
372.000	-.2534
373.000	-.2352
374.000	-.2500
375.000	-.2476
376.000	-.2512
377.000	-.2494
378.000	-.2492
379.000	-.2541
380.000	-.2548
381.000	-.2552

ALPHA (2) = -.333 BETA (2) = 4.031　　BASE　1.000

TAP NO	
369.000	-.2940
370.000	-.2733
371.000	-.2723
372.000	-.2776
373.000	-.2596
374.000	-.2799
375.000	-.2760
376.000	-.2794
377.000	-.2760

ARC11-014IA19 OTS+STRUT SRB-NO4 HFS-OFF ORB BASE   (REUG59)

SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.033 BETA (2) = 4.031   BASE   1.000
                                               TAP NO
                                              378.000   -.2776
                                              379.000   -.2881
                                              380.000   -.2824
                                              381.000   -.2847

ARC11-014IA19 OTS+STRUT-SRB-HI MPS-NOM ORB BASE   (REUG60)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

  SECTION (1)ORBITER BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .012   BASE   1.000
                                                 TAP NO
                                                 369.000   -.3233
                                                 370.000   -.3635
                                                 371.000   -.3728
                                                 372.000   -.3672
                                                 373.000   -.3767
                                                 374.000   -.3131
                                                 375.000   -.3853
                                                 376.000   -.2916
                                                 377.000   -.3651
                                                 378.000   -.3339
                                                 379.000   -.2527
                                                 380.000   -.2405
                                                 381.000   -.2757

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REV101)   (04 FEB 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP = .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT
SCALE = .0200

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH =   .900
GIMBAL =   1.000

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3369	-.3494	-.3474
30.000		-.3455	-.3655
60.000		-.3491	-.3545
90.000		-.3463	-.3363
120.000		-.3413	-.3331
135.000		-.3384	-.3184
150.000		-.3334	-.3048
165.000		-.3295	-.2996
180.000		-.3308	-.3267
195.000		-.3395	-.3611
210.000		-.3405	-.3694
225.000		-.3460	-.3642
240.000		.0000	-.3526
270.000		-.3403	-.3486
300.000		-.3399	-.3575
330.000		-.3481	-.3652

ALPHA (2) = -.210 BETA (1) = -4.006

RADIUS	.000	.333	.667
PHI			
.000	-.3515	-.3500	-.3472
30.000		-.3498	-.3610
60.000		-.3460	-.3492
90.000		-.3426	-.3508
120.000		-.3354	-.3373
135.000		-.3438	-.3374
150.000		-.3454	-.3273
165.000		-.3393	-.3311
180.000		-.3440	-.3331
195.000		-.3505	-.3661
210.000		-.3530	-.3673
225.000		-.3554	-.3633
240.000		.0000	-.3563
270.000		-.3530	-.3472
300.000		-.3604	-.3553
330.000		-.3565	-.3629

ARC11-014IA19 OTS+STRUT SRB-OFF N*S-OFF ET BASE   (REUIO1)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.336 BETA (2) = .006

RADIUS	.000	.333	.667
PHI			
.000	-.3287	-.3340	-.3193
30.000		-.3369	-.3478
60.000		-.3362	-.3347
90.000		-.3299	-.3292
120.000		-.3171	-.3264
135.000		-.3181	-.3072
150.000		-.3116	-.2952
165.000		-.3072	-.2906
180.000		-.3129	-.3046
195.000		-.3177	-.3432
210.000		-.3246	-.3549
225.000		-.3309	-.3446
240.000		.0000	-.3351
270.000		-.3332	-.3288
300.000		-.3337	-.3318
330.000		-.3379	-.3397

ALPHA (2) = -.228 BETA (3) = 4.025

RADIUS	.000	.333	.667
PHI			
.000	-.3509	-.3516	-.3471
30.000		-.3498	-.3547
60.000		-.3500	-.3461
90.000		-.3433	-.3289
120.000		-.3335	-.3362
135.000		-.3325	-.3495
150.000		-.3356	-.3431
165.000		-.3232	-.3493
180.000		-.3332	-.3536
195.000		-.3369	-.3731
210.000		-.3483	-.3878
225.000		-.3475	-.3752
240.000		.0000	-.3553
270.000		-.3490	-.3510
300.000		-.3524	-.3449
330.000		-.3555	-.3581

ALPHA (3) = 3.948 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3212	-.3233	-.3114
30.000		-.3333	-.3389
60.000		-.3266	-.3208
90.000		-.3194	-.3245
120.000		-.3194	-.3211
135.000		-.3121	-.3098
150.000		-.3044	-.2915
165.000		-.3058	-.2784
180.000		-.3135	-.2869
195.000		-.3218	-.3356

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUIO1)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.948 BETA (1) =   .000   RADIUS   .000   .333   .667
                                               PHI
                                               210.000   -.3235 -.3535
                                               225.000   -.3239 -.3458
                                               240.000   .0000 -.3324
                                               270.000   -.3292 -.3244
                                               300.000   -.3322 -.3206
                                               330.000   -.3271 -.3303

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUIO2)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.176 BETA (1) =   .000   RADIUS   .000   .333   .667
                                                 PHI
                                                   .000   -.4040 -.4112 -.4104
                                                 30.000   -.4161 -.4304
                                                 60.000   -.4090 -.4439
                                                 90.000   -.4099 -.4430
                                                120.000   -.4068 -.4133
                                                135.000   -.4105 -.4101
                                                150.000   -.4078 -.4067
                                                165.000   -.4021 -.4023
                                                180.000   -.4037 -.3970
                                                195.000   -.4075 -.4268
                                                210.000   -.4127 -.4295
                                                225.000   -.4176 -.4350
                                                240.000   .0000 -.4420
                                                270.000   -.4151 -.4400
                                                300.000   -.4009 -.4270
                                                330.000   -.4036 -.4149

ALPHA (2) = -.294 BETA (1) = -4.003   RADIUS   .000   .333   .667
                                                 PHI
                                                   .000   -.4201 -.4320 -.4483
                                                 30.000   -.4328 -.4522
                                                 60.000   -.4362 -.4422
                                                 90.000   -.4394 -.4508
                                                120.000   -.4325 -.4378
                                                135.000   -.4346 -.4451
                                                150.000   -.4304 -.4579
                                                165.000   -.4195 -.4549
                                                180.000   -.4152 -.4178
                                                195.000   -.4109 -.4238
                                                210.000   -.4102 -.4254
                                                225.000   -.4110 -.4201
                                                240.000   .0000 -.4243
                                                270.000   -.4205 -.4405
                                                300.000   -.4325 -.4471
                                                330.000   -.4347 -.4488

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUID2)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.252 BETA (2) =   .009

RADIUS PHI	.000	.333	.667
.000	-.3664	-.3885	-.3977
30.000		-.3931	-.4132
60.000		-.3955	-.4201
90.000		-.3975	-.4251
120.000		-.3901	-.4028
135.000		-.3897	-.3825
150.000		-.3817	-.3749
165.000		-.3738	-.3705
180.000		-.3750	-.3661
195.000		-.3762	-.3912
210.000		-.3749	-.3958
225.000		-.3796	-.3988
240.000		.0000	-.4092
270.000		-.3745	-.4115
300.000		-.3765	-.4178
330.000		-.3790	-.4029

ALPHA (2) = -.225 BETA (3) = 4.028

RADIUS PHI	.000	.333	.667
.000	-.4134	-.4209	-.4351
30.000		-.4225	-.4366
60.000		-.4228	-.4397
90.000		-.4121	-.4353
120.000		-.4029	-.4131
135.000		-.4064	-.4105
150.000		-.4029	-.4198
165.000		-.4014	-.4210
180.000		-.4099	-.4043
195.000		-.4125	-.4450
210.000		-.4218	-.4594
225.000		-.4262	-.4438
240.000		.0000	-.4417
270.000		-.4291	-.4324
300.000		-.4269	-.4322
330.000		-.4241	-.4395

ALPHA (3) = 4.028 BETA (1) =   .000

RADIUS PHI	.000	.333	.667
.000	-.3971	-.3990	-.4134
30.000		-.4067	-.4321
60.000		-.4096	-.4227
90.000		-.4053	-.4282
120.000		-.4008	-.4093
135.000		-.4033	-.4018
150.000		-.4004	-.3960
165.000		-.3922	-.3924
180.000		-.3969	-.3881
195.000		-.3952	-.4151

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI02)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 4.026 BETA (1) =   .000   RADIUS   .000   .333   .667
                                              PHI
                                              210.000   -.3950 -.4156
                                              225.000   -.3985 -.4122
                                              240.000   .0000 -.4085
                                              270.000   -.3916 -.4156
                                              300.000   -.3846 -.4033
                                              330.000   -.3905 -.4110

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REVIO3)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.182 BETA (1) =   .003   RADIUS   .000   .333   .667
                                             PHI
                                               .000 -.3281 -.3341 -.3418
                                             30.000   -.3418 -.3576
                                             60.000   -.3426 -.3534
                                             90.000   -.3419 -.3599
                                            120.000   -.3322 -.3369
                                            135.000   -.3353 -.3291
                                            150.000   -.3322 -.3251
                                            165.000   -.3250 -.3226
                                            180.000   -.3277 -.3152
                                            195.000   -.3233 -.3460
                                            210.000   -.3248 -.3586
                                            225.000   -.3255 -.3556
                                            240.000   .0000 -.3499
                                            270.000   -.3226 -.3542
                                            300.000   -.3229 -.3430
                                            330.000   -.3308 -.3383

ALPHA (2) = -.291 BETA (1) = -3.997   RADIUS   .000   .333   .667
                                             PHI
                                               .000 -.3322 -.3390 -.3525
                                             30.000   -.3415 -.3683
                                             60.000   -.3412 -.3446
                                             90.000   -.3456 -.3562
                                            120.000   -.3378 -.3513
                                            135.000   -.3394 -.3510
                                            150.000   -.3362 -.3618
                                            165.000   -.3257 -.3544
                                            180.000   -.3240 -.3317
                                            195.000   -.3188 -.3325
                                            210.000   -.3179 -.3290
                                            225.000   -.3157 -.3311
                                            240.000   .0000 -.3322
                                            270.000   -.3207 -.3419
                                            300.000   -.3277 -.3395
                                            330.000   -.3319 -.3521

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUIO3)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.177 BETA (2) =   .016   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.3080 -.3080 -.3123
                                             30.000   -.3143 -.3293
                                             60.000   -.3117 -.3201
                                             90.000   -.3155 -.3341
                                            120.000   -.3125 -.3177
                                            135.000   -.3139 -.3132
                                            150.000   -.3115 -.3132
                                            165.000   -.3051 -.3094
                                            180.000   -.3082 -.2985
                                            195.000   -.3073 -.3244
                                            210.000   -.3090 -.3354
                                            225.000   -.3102 -.3318
                                            240.000   .0000 -.3271
                                            270.000   -.3037 -.3293
                                            300.000   -.2950 -.3081
                                            330.000   -.3049 -.3180

ALPHA (2) = -.366 BETA (3) = 4.031   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.3271 -.3313 -.3465
                                             30.000   -.3266 -.3501
                                             60.000   -.3291 -.3512
                                             90.000   -.3219 -.3394
                                            120.000   -.3131 -.3309
                                            135.000   -.3176 -.3244
                                            150.000   -.3191 -.3252
                                            165.000   -.3169 -.3262
                                            180.000   -.3246 -.3158
                                            195.000   -.3305 -.3555
                                            210.000   -.3346 -.3633
                                            225.000   -.3406 -.3545
                                            240.000   .0000 -.3548
                                            270.000   -.3453 -.3503
                                            300.000   -.3420 -.3437
                                            330.000   -.3310 -.3620

ALPHA (3) = 3.845 BETA (1) =   .003   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.3099 -.3039 -.3137
                                             30.000   -.3155 -.3367
                                             60.000   -.3167 -.3170
                                             90.000   -.3187 -.3287
                                            120.000   -.3154 -.3286
                                            135.000   -.3181 -.3258
                                            150.000   -.3159 -.3261
                                            165.000   -.3098 -.3205
                                            180.000   -.3117 -.3107
                                            195.000   -.3095 -.3291

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REVI03)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.843 BETA (1) =   .003   RADIUS   .000   .333   .667
                                               PHI
                                               210.000   -.3088 -.3342
                                               225.000   -.3114 -.3320
                                               240.000   .0000 -.3251
                                               270.000   -.3044 -.3242
                                               300.000   -.2993 -.3079
                                               330.000   -.3029 -.3355

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI04)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

```
SREF  =  2690.0000 SQ.FT.   XMRP  =   976.0000 IN. XT          ELV-IB =   8.000   ELV-OB =   4.000
LREF  =  1290.3000 IN.      YMRP  =     .0000 IN. YT           RUDDER =    .000   MACH   =   1.400
BREF  =  1290.3000 IN.      ZMRP  =   400.0000 IN. ZT          GIMBAL =   1.000
SCALE =     .0200
```

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .009

RADIUS FHI	.000	.333	.667
.000	-.2909	-.2897	-.2819
30.000		-.2981	-.3152
60.000		-.2910	-.3025
90.000		-.2907	-.3091
120.000		-.2871	-.3165
135.000		-.2911	-.3142
150.000		-.2896	-.3360
165.000		-.2856	-.3221
180.000		-.2913	-.2890
195.000		-.2936	-.3079
210.000		-.2925	-.3130
225.000		-.2931	-.3081
240.000		.0000	-.2997
270.000		-.2841	-.2943
300.000		-.2782	-.2837
330.000		-.2846	-.2831

ALPHA (2) = -.204 BETA (1) = -4.000

RADIUS FHI	.000	.333	.667
.000	-.2763	-.2749	-.2732
30.000		-.2734	-.2816
60.000		-.3923	-.2814
90.000		-.2859	-.2960
120.000		-.2791	-.3310
135.000		-.2816	-.3166
150.000		-.2797	-.3270
165.000		-.2715	-.3073
180.000		-.2715	-.2765
195.000		-.2706	-.2658
210.000		-.2694	-.2661
225.000		-.2645	-.2711
240.000		.0000	-.2918
270.000		-.2570	-.2842
300.000		-.2714	-.2850
330.000		-.2718	-.2966

ARC11-014TA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUID4)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.306 BETA (2) =   .016

RADIUS	.000	.333	.667
PHI			
.000	-.2580	-.2552	-.2557
30.000		-.2585	-.2696
60.000		-.2537	-.2636
90.000		-.2640	-.2820
120.000		-.2649	-.2798
135.000		-.2697	-.2769
150.000		-.2690	-.2763
165.000		-.2619	-.2724
180.000		-.2657	-.2603
195.000		-.2620	-.2755
210.000		-.2648	-.2909
225.000		-.2633	-.2876
240.000		.0000	-.2805
270.000		-.2568	-.2756
300.000		-.2486	-.2654
330.000		-.2514	-.2667

ALPHA (2) = -.26? BETA (3) = 4.031

RADIUS	.000	.333	.667
PHI			
.000	-.2738	-.2732	-.2686
30.000		-.2711	-.2745
60.000		-.2719	-.2805
90.000		-.2632	-.2767
120.000		-.2588	-.2727
135.000		-.2641	-.2671
150.000		-.2675	-.2732
165.000		-.2655	-.2770
180.000		-.2733	-.2653
195.000		-.2730	-.2952
210.000		-.2769	-.3056
225.000		-.2798	-.3102
240.000		.0000	-.3239
270.000		-.2860	-.2924
300.000		-.2798	-.2804
330.000		-.2711	-.2824

ALPHA (3) = 4.392 BETA (1) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.2433	-.2216	-.2541
30.000		-.2381	-.2393
60.000		-.2442	-.2450
90.000		-.2452	-.2523
120.000		-.2402	-.2472
135.000		-.2455	-.2531
150.000		-.2455	-.2526
165.000		-.2394	-.2509
180.000		-.2425	-.2382
195.000		-.2415	-.2543

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI04)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 4.392 BETA (1) =   .012   RADIUS   .000   .333   .667
                                                PHI
                                                210.000   -.2410 -.2623
                                                225.000   -.2442 -.2838
                                                240.000   .0000 -.2693
                                                270.000   -.2427 -.2507
                                                300.000   -.2356 -.2376
                                                330.000   -.2351 -.2574

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REVI05)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.119 BETA (1) = -.006   RADIUS   .000   .333   .667
                                            PHI
                                              .000   -.3791   -.3914   -.3921
                                            30.000   -.3914   -.3998
                                            60.000   -.3773   -.3959
                                            90.000   -.3725   -.3838
                                           120.000   -.3801   -.3793
                                           135.000   -.3775   -.3564
                                           150.000   -.3703   -.3398
                                           165.000   -.3658   -.3356
                                           180.000   -.3702   -.3577
                                           195.000   -.3750   -.3957
                                           210.000   -.3798   -.4149
                                           225.000   -.3812   -.3983
                                           240.000   .0000   -.3951
                                           270.000   -.3776   -.3892
                                           300.000   -.3793   -.3892
                                           330.000   -.3879   -.4070

ALPHA (2) = -.306 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                            PHI
                                              .000   -.3918   -.3980   -.3734
                                            30.000   -.3971   -.3871
                                            60.000   -.3853   -.3793
                                            90.000   -.3804   -.3941
                                           120.000   -.3819   -.3773
                                           135.000   -.3792   -.3606
                                           150.000   -.3789   -.3563
                                           165.000   -.3704   -.3632
                                           180.000   -.3871   -.3614
                                           195.000   -.3920   -.3976
                                           210.000   -.3943   -.3945
                                           225.000   -.3977   -.3923
                                           240.000   .0000   -.3921
                                           270.000   -.3948   -.3741
                                           300.000   -.3958   -.3955
                                           330.000   -.3987   -.3953

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUID5)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.264 BETA (2) = .016

RADIUS	.000	.333	.667
PHI			
.000	-.3772	-.3883	-.3762
30.000		-.3865	-.4018
60.000		-.3812	-.3811
90.000		-.3833	-.3909
120.000		-.3776	-.3776
135.000		-.3680	-.3596
150.000		-.3651	-.3473
165.000		-.3657	-.3352
180.000		-.3629	-.3539
195.000		-.3702	-.3954
210.000		-.3812	-.4034
225.000		-.3782	-.4012
240.000		.0000	-.3917
270.000		-.3847	-.3846
300.000		-.3871	-.3839
330.000		-.3926	-.3967

ALPHA (2) = -.340 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.3836	-.3974	-.4247
30.000		-.3921	-.4305
60.000		-.4142	-.4269
90.000		-.4158	-.3626
120.000		-.3999	-.3680
135.000		-.4041	-.3640
150.000		-.4144	-.3755
165.000		-.4087	-.3918
180.000		-.3713	-.4251
195.000		-.3782	-.4432
210.000		-.3838	-.4560
225.000		-.3912	-.4367
240.000		.0000	-.4289
270.000		-.3822	-.4275
300.000		-.3933	-.4136
330.000		-.4134	-.4221

ALPHA (3) = 3.924 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3688	-.3786	-.3525
30.000		-.3784	-.3708
60.000		-.3698	-.3647
90.000		-.3645	-.3730
120.000		-.3570	-.3691
135.000		-.3546	-.3579
150.000		-.3508	-.3514
165.000		-.3467	-.3437
180.000		-.3628	-.3263
195.000		-.3683	-.3681

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI05)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.924 BETA (1) =   .000   RADIUS   .000   .333   .667
                                                PHI
                                                210.000   -.3754   -.3871
                                                225.000   -.3732   -.3827
                                                240.000   .0000   -.3630
                                                270.000   -.3827   -.3571
                                                300.000   -.3796   -.3481
                                                330.000   -.3847   -.3699

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI06)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.074 BETA (1) =   .000   RADIUS   .000   .333   .667
                                                   PHI
                                                    .000   -.3904 -.3953 -.3968
                                                   30.000   -.4017 -.4139
                                                   60.000   -.3952 -.4259
                                                   90.000   -.3956 -.4251
                                                  120.000   -.3928 -.3974
                                                  135.000   -.3948 -.3925
                                                  150.000   -.3899 -.3898
                                                  165.000   -.3869 -.3889
                                                  180.000   -.3892 -.3828
                                                  195.000   -.3921 -.4104
                                                  210.000   -.3963 -.4117
                                                  225.000   -.3989 -.4196
                                                  240.000   .0000 -.4241
                                                  270.000   -.3987 -.4238
                                                  300.000   -.3890 -.4103
                                                  330.000   -.3875 -.4013

ALPHA (2) = -.396 BETA (1) = -4.003   RADIUS   .000   .333   .667
                                                   PHI
                                                    .000   -.3830 -.3926 -.4082
                                                   30.000   -.3917 -.4087
                                                   60.000   -.3937 -.4013
                                                   90.000   -.3972 -.4144
                                                  120.000   -.3921 -.3995
                                                  135.000   -.3948 -.4089
                                                  150.000   -.3943 -.4237
                                                  165.000   -.3840 -.4183
                                                  180.000   -.3813 -.3906
                                                  195.000   -.3756 -.3894
                                                  210.000   -.3739 -.3885
                                                  225.000   -.3769 -.3875
                                                  240.000   .0000 -.3890
                                                  270.000   -.3865 -.4001
                                                  300.000   -.3941 -.4098
                                                  330.000   -.3981 -.4071

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REV106)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.408 BETA (2) =   .009   RADIUS   .000   .333   .667
                                           PHI
                                              .000 -.3476 -.3646 -.3750
                                            30.000   -.3699 -.3891
                                            60.000   -.3711 -.3961
                                            90.000   -.3725 -.3951
                                           120.000   -.3624 -.3751
                                           135.000   -.3620 -.3590
                                           150.000   -.3585 -.3534
                                           165.000   -.3487 -.3496
                                           180.000   -.3525 -.3454
                                           195.000   -.3522 -.3686
                                           210.000   -.3548 -.3742
                                           225.000   -.3573 -.3757
                                           240.000   .0000 -.3774
                                           270.000   -.3528 -.3843
                                           300.000   -.3553 -.3913
                                           330.000   -.3600 -.3804

ALPHA (2) = -.339 BETA (3) = 4.028   RADIUS   .000   .333   .667
                                           PHI
                                              .000 -.3852 -.3915 -.3994
                                            30.000   -.3913 -.3999
                                            60.000   -.3924 -.4062
                                            90.000   -.3838 -.4040
                                           120.000   -.3730 -.3865
                                           135.000   -.3756 -.3825
                                           150.000   -.3744 -.3906
                                           165.000   -.3697 -.3927
                                           180.000   -.3809 -.3790
                                           195.000   -.3851 -.4102
                                           210.000   -.3922 -.4239
                                           225.000   -.3972 -.4097
                                           240.000   .0000 -.4029
                                           270.000   -.3982 -.3994
                                           300.000   -.3962 -.3943
                                           330.000   -.3923 -.4014

ALPHA (3) = 3.984 BETA (1) =   .003   RADIUS   .000   .333   .667
                                           PHI
                                              .000 -.3722 -.3737 -.3837
                                            30.000   -.3825 -.4027
                                            60.000   -.3810 -.3948
                                            90.000   -.3926 -.4000
                                           120.000   -.3745 -.3805
                                           135.000   -.3766 -.3741
                                           150.000   -.3725 -.3695
                                           165.000   -.3654 -.3667
                                           180.000   -.3597 -.3624
                                           195.000   -.3693 -.3911

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI06)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.984 BETA (1) =   .003   RADIUS   .000   .333   .667
                                                  PHI
                                                  210.000   -.3712 -.3893
                                                  225.000   -.3725 -.3820
                                                  240.000   .0000 -.3810
                                                  270.000   -.3662 -.3846
                                                  300.000   -.3620 -.3740
                                                  330.000   -.3667 -.3882

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REU107)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.131 BETA (1) =   .003   RADIUS   .000   .333   .667
                                             PHI
                                                .000 -.2874 -.2880 -.2929
                                              30.000   -.2976 -.3142
                                              60.000   -.2979 -.3083
                                              90.000   -.2986 -.3106
                                             120.000   -.2907 -.2964
                                             135.000   -.2917 -.2910
                                             150.000   -.2920 -.2854
                                             165.000   -.2871 -.2826
                                             180.000   -.2887 -.2776
                                             195.000   -.2877 -.3036
                                             210.000   -.2877 -.3110
                                             225.000   -.2873 -.3100
                                             240.000   .0000 -.3047
                                             270.000   -.2826 -.3026
                                             300.000   -.2790 -.2956
                                             330.000   -.2825 -.2920

ALPHA (2) = -.300 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                             PHI
                                                .000 -.2799 -.2870 -.2929
                                              30.000   -.2856 -.3039
                                              60.000   -.2870 -.2877
                                              90.000   -.2900 -.2970
                                             120.000   -.2853 -.3018
                                             135.000   -.2889 -.3076
                                             150.000   -.2864 -.3241
                                             165.000   -.2739 -.3114
                                             180.000   -.2724 -.2946
                                             195.000   -.2666 -.2900
                                             210.000   -.2666 -.2859
                                             225.000   -.2708 -.2858
                                             240.000   .0000 -.2793
                                             270.000   -.2751 -.2859
                                             300.000   -.2798 -.2840
                                             330.000   -.2812 -.2971

ARC11-014IA19 OTS+STRUT SRB-NOM MFS-NOM ET BASE   (REV107)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.411 BETA (2) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.2626	-.2630	-.2616
30.000		-.2666	-.2859
60.000		-.2643	-.2722
90.000		-.2665	-.2888
120.000		-.2624	-.2743
135.000		-.2652	-.2710
150.000		-.2640	-.2688
165.000		-.2577	-.2631
180.000		-.2623	-.2536
195.000		-.2620	-.2764
210.000		-.2634	-.2853
225.000		-.2647	-.2823
240.000		.0000	-.2749
270.000		-.2574	-.2813
300.000		-.2529	-.2606
330.000		-.2592	-.2799

ALPHA (2) = -.438 BETA (3) = 4.031 .

RADIUS	.000	.333	.667
PHI			
.000	-.2867	-.2870	-.3018
30.000		-.2804	-.3028
60.000		-.2855	-.2987
90.000		-.2798	-.2866
120.000		-.2776	-.2818
135.000		-.2796	-.2816
150.000		-.2806	-.2875
165.000		-.2760	-.2850
180.000		-.2763	-.2806
195.000		-.2788	-.3263
210.000		-.2850	-.3364
225.000		-.2910	-.3285
240.000		.0000	-.3245
270.000		-.2942	-.3063
300.000		-.2898	-.2976
330.000		-.2853	-.3194

ALPHA (3) = 5.582 BETA (1) =   .003

RADIUS	.000	.333	.667
PHI			
.000	-.2715	-.2625	-.2664
30.000		-.2715	-.2889
60.000		-.2756	-.2717
90.000		-.2797	-.2814
120.000		-.2731	-.2859
135.000		-.2759	-.2834
150.000		-.2749	-.2825
165.000		-.2678	-.2785
180.000		-.2725	-.2676
195.000		-.2693	-.2890

ARC11-014TA19 OTS+STRUT SRB-NCH MPS-NCH ET BASE   (REU107)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.582 BETA (1) = .003

RADIUS	.000	.333	.667
PHI			
210.000		-.2701	-.2918
225.000		-.2725	-.2902
240.000		.0000	-.2842
270.000		-.2662	-.2811
300.000		-.2571	-.2651
330.000		-.2587	-.2935

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI08)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) =   .006   RADIUS   .000   .333   .667
                                             PHI
                                                .000   -.2124 -.2062 -.2092
                                              30.000   -.2127 -.2246
                                              60.000   -.2112 -.2198
                                              90.000   -.2164 -.2298
                                             120.000   -.2143 -.2198
                                             135.000   -.2148 -.2170
                                             150.000   -.2137 -.2205
                                             165.000   -.2112 -.2167
                                             180.000   -.2133 -.2094
                                             195.000   -.2118 -.2340
                                             210.000   -.2128 -.2340
                                             225.000   -.2144 -.2238
                                             240.000   .0000 -.2190
                                             270.000   -.2102 -.2164
                                             300.000   -.2056 -.2100
                                             330.000   -.2037 -.2142

ALPHA (2) = -.468 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                             PHI
                                                .000   -.2132 -.2181 -.2080
                                              30.000   -.2142 -.2193
                                              60.000   -.2244 -.2199
                                              90.000   -.2264 -.2341
                                             120.000   -.2211 -.2619
                                             135.000   -.2177 -.2516
                                             150.000   -.2129 -.2653
                                             165.000   -.2099 -.2381
                                             180.000   -.2064 -.2214
                                             195.000   -.2059 -.2201
                                             210.000   -.2073 -.2119
                                             225.000   -.2073 -.2145
                                             240.000   .0000 -.2137
                                             270.000   -.2057 -.2162
                                             300.000   -.2096 -.2156
                                             330.000   -.2105 -.2164

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REVI08)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.438 BETA (2) = .016

RADIUS	.000	.333	.667
PHI			
.000	-.2035	-.1978	-.1944
30.000		-.2051	-.2196
60.000		-.2041	-.2115
90.000		-.2056	-.2217
120.000		-.2050	-.2109
135.000		-.2084	-.2080
150.000		-.2059	-.2060
165.000		-.2010	-.2044
180.000		-.2040	-.1951
195.000		-.2052	-.2223
210.000		-.2052	-.2299
225.000		-.2068	-.2228
240.000		.0000	-.2168
270.000		-.2020	-.2172
300.000		-.1926	-.2024
330.000		-.1950	-.2049

ALPHA (2) = -.458 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.2199	-.2237	-.2120
30.000		-.2109	-.2129
60.000		-.2062	-.2125
90.000		-.2050	-.2112
120.000		-.2099	-.2127
135.000		-.2149	-.2169
150.000		-.2134	-.2220
165.000		-.2109	-.2154
180.000		-.2173	-.2098
195.000		-.2191	-.2440
210.000		-.2196	-.2624
225.000		-.2251	-.2645
240.000		.0000	-.2698
270.000		-.2302	-.2404
300.000		-.2281	-.2273
330.000		-.2223	-.2278

ALPHA (3) = 4.014 BETA (1) = .009

RADIUS	.000	.333	.667
PHI			
.000	-.2040	-.1870	-.2047
30.000		-.1995	-.1942
60.000		-.2033	-.2032
90.000		-.2023	-.2027
120.000		-.1974	-.1977
135.000		-.2026	-.1995
150.000		-.2001	-.2007
165.000		-.1945	-.1959
180.000		-.1984	-.1879
195.000		-.1970	-.2192

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUIO8)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 4.014 BETA (1) =   .009   RADIUS   .000   .333   .667
                                                PHI
                                                210.000   -.1955 -.2219
                                                225.000   -.2010 -.2273
                                                240.000   .0000 -.2177
                                                270.000   -.2009 -.2090
                                                300.000   -.1934 -.1942
                                                330.000   -.1913 -.1950

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .000   RADIUS   .000   .333   .667
                                              PHI
                                                 .000   -.3614 -.3609 -.3809
                                               30.000   -.3674 -.4043
                                               60.000   -.3788 -.3923
                                               90.000   -.3800 -.3759
                                              120.000   -.3700 -.3853
                                              135.000   -.3718 -.3591
                                              150.000   -.3702 -.3288
                                              165.000   -.3652 -.3317
                                              180.000   -.3514 -.3487
                                              195.000   -.3556 -.3968
                                              210.000   -.3628 -.4137
                                              225.000   -.3602 -.3918
                                              240.000   .0000 -.3899
                                              270.000   -.3566 -.3843
                                              300.000   -.3602 -.3801
                                              330.000   -.3560 -.3841

ALPHA (2) = -.436 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                              PHI
                                                 .000   -.3798 -.3841 -.3650
                                               30.000   -.3838 -.3896
                                               60.000   -.3795 -.3795
                                               90.000   -.3754 -.3836
                                              120.000   -.3651 -.3665
                                              135.000   -.3676 -.3531
                                              150.000   -.3667 -.3477
                                              165.000   -.3575 -.3451
                                              180.000   -.3742 -.3484
                                              195.000   -.3732 -.3943
                                              210.000   -.3744 -.3944
                                              225.000   -.3740 -.3712
                                              240.000   .0000 -.3688
                                              270.000   -.3762 -.3556
                                              300.000   -.3824 -.3667
                                              330.000   -.3786 -.3766

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REUIO9)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.525 BETA (2) = -.003

RADIUS	.000	.333	.667
PHI			
.000	-.3577	-.3494	-.3222
30.000		-.3495	-.3671
60.000		-.3389	-.3437
90.000		-.3295	-.3748
120.000		-.3217	-.3637
135.000		-.3241	-.3545
150.000		-.3186	-.3273
165.000		-.3178	-.3224
180.000		-.3384	-.3106
195.000		-.3426	-.3546
210.000		-.3394	-.3685
225.000		-.3385	-.3472
240.000		.0000	-.3387
270.000		-.3406	-.3411
300.000		-.3368	-.3284
330.000		-.3394	-.3423

ALPHA (2) = -.441 BETA (3) = 4.025

RADIUS	.000	.333	.667
PHI			
.000	-.3748	-.3636	-.3406
30.000		-.3664	-.3626
60.000		-.3567	-.3640
90.000		-.3500	-.3438
120.000		-.3482	-.3561
135.000		-.3614	-.3710
150.000		-.3575	-.3793
165.000		-.3613	-.3954
180.000		-.3785	-.3861
195.000		-.3834	-.3952
210.000		-.3767	-.3904
225.000		-.3741	-.3781
240.000		.0000	-.3690
270.000		-.3713	-.3614
300.000		-.3698	-.3582
330.000		-.3684	-.3807

ALPHA (3) = 4.050 BETA (1) = .006

RADIUS	.000	.333	.667
PHI			
.000	-.3354	-.3399	-.3103
30.000		-.3498	-.3467
60.000		-.3379	-.3392
90.000		-.3394	-.3645
120.000		-.3184	-.3546
135.000		-.3176	-.3361
150.000		-.3182	-.3238
165.000		-.3092	-.3185
180.000		-.3302	-.3048
195.000		-.3349	-.3437

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REU109)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 4.050 BETA (1) =   .006   RADIUS   .000   .333   .667
                                              PHI
                                              210.000   -.3368 -.3581
                                              225.000   -.3362 -.3315
                                              240.000   .0000 -.3273
                                              270.000   -.3336 -.3315
                                              300.000   -.3314 -.3129
                                              330.000   -.3411 -.3279

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REUI10)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.978 BETA (1) = -.006

RADIUS PHI	.000	.333	.667
.000	-.4066	-.4106	-.4111
30.000		-.4157	-.4300
60.000		-.4093	-.4405
90.000		-.4094	-.4473
120.000		-.4073	-.4173
135.000		-.4083	-.4124
150.000		-.4067	-.4122
165.000		-.4003	-.4084
180.000		-.4076	-.3954
195.000		-.4085	-.4253
210.000		-.4128	-.4261
225.000		-.4169	-.4352
240.000		.0000	-.4415
270.000		-.4180	-.4380
300.000		-.4034	-.4244
330.000		-.4012	-.4158

ALPHA (2) = -.387 BETA (1) = -4.003

RADIUS PHI	.000	.333	.667
.000	-.4077	-.4150	-.4305
30.000		-.4150	-.4350
60.000		-.4196	-.4254
90.000		-.4221	-.4349
120.000		-.4136	-.4219
135.000		-.4176	-.4306
150.000		-.4173	-.4450
165.000		-.4035	-.4352
180.000		-.4019	-.4138
195.000		-.3986	-.4156
210.000		-.3963	-.4145
225.000		-.4003	-.4080
240.000		.0000	-.4084
270.000		-.4077	-.4251
300.000		-.4183	-.4316
330.000		-.4195	-.4311

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REVI10)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.429 BETA (2) = .009

RADIUS	.000	.333	.667
PHI			
.000	-.3623	-.3794	-.3920
30.000		-.3846	-.4083
60.000		-.3861	-.4130
90.000		-.3873	-.4166
120.000		-.3817	-.3947
135.000		-.3821	-.3758
150.000		-.3748	-.3706
165.000		-.3665	-.3660
180.000		-.3688	-.3603
195.000		-.3696	-.3842
210.000		-.3694	-.3909
225.000		-.3734	-.3944
240.000		.0000	-.4003
270.000		-.3702	-.4021
300.000		-.3744	-.4105
330.000		-.3771	-.3959

ALPHA (2) = -.384 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.3959	-.4061	-.4203
30.000		-.4085	-.4233
60.000		-.4092	-.4266
90.000		-.4023	-.4192
120.000		-.3915	-.3969
135.000		-.3944	-.3959
150.000		-.3913	-.4016
165.000		-.3908	-.4051
180.000		-.3944	-.3972
195.000		-.3991	-.4345
210.000		-.4080	-.4451
225.000		-.4096	-.4319
240.000		.0000	-.4294
270.000		-.4128	-.4217
300.000		-.4122	-.4188
330.000		-.4091	-.4254

ALPHA (3) = 3.930 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3934	-.3956	-.4134
30.000		-.4065	-.4306
60.000		-.4044	-.4242
90.000		-.4070	-.4244
120.000		-.3995	-.4041
135.000		-.4025	-.3995
150.000		-.3985	-.3929
165.000		-.3912	-.3900
180.000		-.3934	-.3894
195.000		-.3931	-.4143

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REUI10)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.930 BETA (1) =   .000   RADIUS   .000   .333   .667
                                               PHI
                                               210.000   -.3919 -.4168
                                               225.000   -.3968 -.4132
                                               240.000   .0000 -.4086
                                               270.000   -.3894 -.4156
                                               300.000   -.3847 -.4039
                                               330.000   -.3906 -.4119

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REUI11)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.746 BETA (1) =   .006   RADIUS   .000   .333   .667
                                           PHI
                                               .000 -.3090 -.3152 -.3224
                                             30.000   -.3230 -.3404
                                             60.000   -.3217 -.3327
                                             90.000   -.3189 -.3383
                                            120.000   -.3124 -.3188
                                            135.000   -.3141 -.3121
                                            150.000   -.3128 -.3052
                                            165.000   -.3059 -.3043
                                            180.000   -.3087 -.2991
                                            195.000   -.3084 -.3303
                                            210.000   -.3095 -.3399
                                            225.000   -.3114 -.3374
                                            240.000   .0000 -.3300
                                            270.000   -.3082 -.3297
                                            300.000   -.3065 -.3242
                                            330.000   -.3108 -.3174

ALPHA (2) = -.444 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                           PHI
                                               .000 -.3035 -.3042 -.3168
                                             30.000   -.3026 -.3292
                                             60.000   -.3089 -.3066
                                             90.000   -.3151 -.3172
                                            120.000   -.3097 -.3198
                                            135.000   -.3127 -.3230
                                            150.000   -.3100 -.3405
                                            165.000   -.3009 -.3288
                                            180.000   -.2975 -.3130
                                            195.000   -.2892 -.3095
                                            210.000   -.2902 -.3036
                                            225.000   -.2905 -.3057
                                            240.000   .0000 -.3017
                                            270.000   -.2963 -.3081
                                            300.000   -.2980 -.3054
                                            330.000   -.2981 -.3159

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REUI11)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.402 BETA (2) =   .012

PHI	RADIUS .000	.333	.667
.000	-.2833	-.2845	-.2896
30.000		-.2891	-.3045
60.000		-.2873	-.2977
90.000		-.2912	-.3102
120.000		-.2866	-.2932
135.000		-.2881	-.2887
150.000		-.2879	-.2846
165.000		-.2815	-.2816
180.000		-.2820	-.2733
195.000		-.2846	-.3038
210.000		-.2847	-.3075
225.000		-.2881	-.3051
240.000		.0000	-.3020
270.000		-.2808	-.3051
300.000		-.2748	-.2850
330.000		-.2823	-.2974

ALPHA (2) = -.324 BETA (3) = 4.034

PHI	RADIUS .000	.333	.667
.000	-.2971	-.3001	-.3163
30.000		-.2958	-.3139
60.000		-.2978	-.3175
90.000		-.2922	-.3055
120.000		-.2884	-.2984
135.000		-.2900	-.2930
150.000		-.2911	-.2925
165.000		-.2871	-.2960
180.000		-.2928	-.2892
195.000		-.2974	-.3351
210.000		-.3021	-.3384
225.000		-.3073	-.3315
240.000		.0000	-.3281
270.000		-.3123	-.3151
300.000		-.3064	-.3081
330.000		-.3003	-.3297

ALPHA (3) = 3.552 BETA (1) =   .003

PHI	RADIUS .000	.333	.667
.000	-.2884	-.2896	-.2885
30.000		-.2902	-.3084
60.000		-.2907	-.2904
90.000		-.2954	-.3055
120.000		-.2898	-.3039
135.000		-.2931	-.2976
150.000		-.2918	-.2979
165.000		-.2855	-.2956
180.000		-.2968	-.2825
195.000		-.2840	-.3079

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REUI11)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 5.552 BETA (1) =   .003   RADIUS   .000   .333   .667
                                            PHI
                                            210.000   -.2833 -.3100
                                            225.000   -.2860 -.3067
                                            240.000   .0000 -.3009
                                            270.000   -.2801 -.3000
                                            300.000   -.2741 -.2823
                                            330.000   -.2774 -.3073

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REU112) (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 976.0000 IN. XT   ELV-IB = 8.000 ELV-OB = 4.000
LREF = 1290.3000 IN. YMRP = .0000 IN. YT   RUDDER = .000 MACH = 1.400
BREF = 1290.3000 IN. ZMRP = 400.0000 IN. ZT   GIMBAL = 1.000
SCALE = .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .000

RADIUS	.000	.333	.667
PHI			
.000	-.2426	-.2367	-.2421
30.000		-.2395	-.2520
60.000		-.2424	-.2507
90.000		-.2466	-.2596
120.000		-.2470	-.2545
135.000		-.2487	-.2565
150.000		-.2499	-.2500
165.000		-.2446	-.2461
180.000		-.2433	-.2463
195.000		-.2426	-.2679
210.000		-.2409	-.2698
225.000		-.2429	-.2598
240.000		.0000	-.2537
270.000		-.2387	-.2499
300.000		-.2330	-.2432
330.000		-.2347	-.2440

ALPHA (2) = -.390 BETA (1) = -4.003

RADIUS	.000	.333	.667
PHI			
.000	-.2375	-.2386	-.2333
30.000		-.2383	-.2434
60.000		-.2418	-.2418
90.000		-.2483	-.2583
120.000		-.2422	-.2843
135.000		-.2429	-.2719
150.000		-.2366	-.2877
165.000		-.2307	-.2645
180.000		-.2326	-.2398
195.000		-.2304	-.2344
210.000		-.2277	-.2330
225.000		-.2298	-.2356
240.000		.0000	-.2420
270.000		-.2233	-.2389
300.000		-.2293	-.2422
330.000		-.2319	-.2460

ARC11-014IA19 OTS+STRUT SRB-LOW MFS-NOM ET BASE   (REUI12)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.378 BETA (2) =   .006

RADIUS	.000	.333	.667
PHI			
.000	-.2239	-.2196	-.2166
30.000		-.2249	-.2395
60.000		-.2230	-.2311
90.000		-.2300	-.2497
120.000		-.2285	-.2374
135.000		-.2312	-.2334
150.000		-.2308	-.2292
165.000		-.2258	-.2260
180.000		-.2256	-.2205
195.000		-.2253	-.2409
210.000		-.2266	-.2527
225.000		-.2309	-.2500
240.000		.0000	-.2433
270.000		-.2210	-.2409
300.000		-.2136	-.2277
330.000		-.2177	-.2250

ALPHA (2) = -.318 BETA (3) = 4.025

RADIUS	.000	.333	.667
PHI			
.000	-.2383	-.2364	-.2338
30.000		-.2316	-.2307
60.000		-.2273	-.2367
90.000		-.2225	-.2335
120.000		-.2237	-.2370
135.000		-.2280	-.2370
150.000		-.2322	-.2426
165.000		-.2274	-.2419
180.000		-.2361	-.2274
195.000		-.2365	-.2614
210.000		-.2390	-.2784
225.000		-.2444	-.2823
240.000		.0000	-.2866
270.000		-.2503	-.2569
300.000		-.2474	-.2440
330.000		-.2367	-.2445

ALPHA (3) = 4.005 BETA (1) =   .000

RADIUS	.000	.333	.667
PHI			
.000	-.2194	-.2070	-.2259
30.000		-.2204	-.2130
60.000		-.2208	-.2225
90.000		-.2225	-.2244
120.000		-.2182	-.2182
135.000		-.2191	-.2222
150.000		-.2191	-.2205
165.000		-.2124	-.2146
180.000		-.2154	-.2076
195.000		-.2173	-.2413

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REUII2)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 4.000 BETA (1) =   .000   RADIUS   .000   .333   .667
                                               PHI
                                               210.000   -.2184 -.2390
                                               225.000   -.2209 -.2545
                                               240.000   .0000 -.2415
                                               270.000   -.2210 -.2281
                                               300.000   -.2119 -.2152
                                               330.000   -.2109 -.2178

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REUI13)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.119 BETA (1) = -.003   RADIUS   .000   .333   .667
                                              PHI
                                                 .000   -.3418 -.3659 -.3777
                                               30.000   -.3657 -.3869
                                               60.000   -.3699 -.3774
                                               90.000   -.3715 -.3407
                                              120.000   -.3638 -.3385
                                              135.000   -.3601 -.3157
                                              150.000   -.3540 -.3056
                                              165.000   -.3547 -.3024
                                              180.000   -.3364 -.3448
                                              195.000   -.3446 -.3784
                                              210.000   -.3474 -.3942
                                              225.000   -.3541 -.3890
                                              240.000   .0000 -.3808
                                              270.000   -.3577 -.3754
                                              300.000   -.3581 -.3821
                                              330.000   -.3649 -.3903

ALPHA (2) = -.390 BETA (1) = -3.997   RADIUS   .000   .333   .667
                                              PHI
                                                 .000   -.3593 -.3604 -.3752
                                               30.000   -.3536 -.3841
                                               60.000   -.3632 -.3722
                                               90.000   -.3609 -.3561
                                              120.000   -.3517 -.3428
                                              135.000   -.3594 -.3347
                                              150.000   -.3672 -.3320
                                              165.000   -.3562 -.3281
                                              180.000   -.3544 -.3546
                                              195.000   -.3569 -.3915
                                              210.000   -.3580 -.3917
                                              225.000   -.3552 -.3838
                                              240.000   .0000 -.3729
                                              270.000   -.3640 -.3709
                                              300.000   -.3632 -.3998
                                              330.000   -.3586 -.3950

ARC11-014TA19 OTS+STRUT SRB-NO4 MPS-OFF ET BASE   (REUT13)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.378 BETA (2) = .016

RADIUS	.000	.333	.667
PHI			
.000	-.3360	-.3444	-.3265
30.000		-.3414	-.3481
60.000		-.3425	-.3295
90.000		-.3340	-.3418
120.000		-.3293	-.3369
135.000		-.3260	-.3188
150.000		-.3185	-.3045
165.000		-.3141	-.2942
180.000		-.3273	-.3027
195.000		-.3275	-.3519
210.000		-.3314	-.3663
225.000		-.3357	-.3594
240.000		.0000	-.3456
270.000		-.3451	-.3374
300.000		-.3437	-.3350
330.000		-.3466	-.3474

ALPHA (2) = -.327 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.3402	-.3616	-.3929
30.000		-.3661	-.3944
60.000		-.3807	-.3983
90.000		-.3832	-.3308
120.000		-.3677	-.3381
135.000		-.3705	-.3396
150.000		-.3699	-.3333
165.000		-.3591	-.3059
180.000		-.3189	-.4080
195.000		-.3336	-.4159
210.000		-.3435	-.4240
225.000		-.3494	-.4135
240.000		.0000	-.3952
270.000		-.3546	-.3934
300.000		-.3481	-.3851
330.000		-.3545	-.4021

ALPHA (3) = 3.909 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3242	-.3445	-.3487
30.000		-.3427	-.3732
60.000		-.3357	-.3559
90.000		-.3393	-.3334
120.000		-.3363	-.3232
135.000		-.3378	-.3127
150.000		-.3356	-.3011
165.000		-.3275	-.2912
180.000		-.3174	-.3137
195.000		-.3217	-.3628

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REUI13)

SECTION (1)ET BASE   DEPENDENT VARIABLE CF

ALPHA (3) = 3.909 BETA (1) =   .000   RADIUS   .000   .333   .667
                                                PHI
                                                210.000   -.3279 -.3853
                                                225.000   -.3382 -.3771
                                                240.000   .0000 -.3617
                                                270.000   -.3356 -.3545
                                                300.000   -.3452 -.3513
                                                330.000   - 3456 -.3654

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REU114)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -5.142 BETA (1) = -.006   RADIUS   .000   .333   .667
                                             PHI
                                                .000   -.3902 -.3934 -.3917
                                              30.000   -.3981 -.4118
                                              60.000   -.3962 -.4128
                                              90.000   -.3941 -.4220
                                             120.000   -.3894 -.4031
                                             135.000   -.3912 -.3940
                                             150.000   -.3900 -.3887
                                             165.000   -.3838 -.3961
                                             180.000   -.3875 -.3810
                                             195.000   -.3907 -.4055
                                             210.000   -.3947 -.4029
                                             225.000   -.3972 -.4337
                                             240.000   .0000 -.4270
                                             270.000   -.3973 -.4121
                                             300.000   -.3895 -.3992
                                             330.000   -.3876 -.3963

ALPHA (2) = -.321 BETA (1) = -4.003.   RADIUS   .000   .333   .667
                                             PHI
                                                .000   -.3785 -.3886 -.4044
                                              30.000   -.3873 -.4067
                                              60.000   -.3917 -.3981
                                              90.000   -.3956 -.4088
                                             120.000   -.3902 -.3968
                                             135.000   -.3932 -.4069
                                             150.000   -.3912 -.4216
                                             165.000   -.3795 -.4140
                                             180.000   -.3771 -.3865
                                             195.000   -.3739 -.3835
                                             210.000   -.3709 -.3961
                                             225.000   -.3727 -.3842
                                             240.000   .0000 -.3839
                                             270.000   -.3941 -.3976
                                             300.000   -.3923 -.4067
                                             330.000   -.3952 -.4030

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REUI14)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.432 BETA (2) =   .016

RADIUS	.000	.333	.667
PHI			
.000	-.3369	-.3554	-.3622
30.000		-.3626	-.3797
60.000		-.3647	-.3862
90.000		-.3682	-.3878
120.000		-.3591	-.3682
135.000		-.3551	-.3515
150.000		-.3509	-.3465
165.000		-.3423	-.3422
180.000		-.3431	-.3401
195.000		-.3431	-.3617
210.000		-.3456	-.3675
225.000		-.3502	-.3701
240.000		.0000	-.3775
270.000		-.3447	-.3816
300.000		-.3466	-.3867
330.000		-.3487	-.3706

ALPHA (2) = -.396 BETA (3) = 4.025

RADIUS	.000	.333	.667
PHI			
.000	-.3770	-.3830	-.3938
30.000		-.3848	-.3951
60.000		-.3849	-.3999
90.000		-.3759	-.3937
120.000		-.3654	-.3747
135.000		-.3672	-.3728
150.000		-.3671	-.3796
165.000		-.3637	-.3814
180.000		-.3720	-.3707
195.000		-.3772	-.4051
210.000		-.3826	-.4175
225.000		-.3865	-.4097
240.000		.0000	-.3960
270.000		-.3899	-.3933
300.000		-.3848	-.3877
330.000		-.3841	-.3990

ALPHA (3) = 3.864 BETA (1) =   .003

RADIUS	.000	.333	.667
PHI			
.000	-.3681	-.3695	-.3785
30.000		-.3798	-.3965
60.000		-.3786	-.3885
90.000		-.3764	-.3956
120.000		-.3694	-.3759
135.000		-.3714	-.3711
150.000		-.3682	-.3677
165.000		-.3601	-.3610
180.000		-.3675	-.3591
195.000		-.3677	-.3825

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REUI14)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.864 BETA (1) =   .003   RADIUS   .000   .333   .667
                                              PHI
                                              210.000   -.3672 -.3833
                                              225.000   -.3697 -.3785
                                              240.000   .0000 -.3756
                                              270.000   -.3609 -.3798
                                              300.000   -.3557 -.3667
                                              330.000   -.3629 -.3791

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REV113)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.113 BETA (1) =   .003   RADIUS   .000   .333   .667
                                                PHI
                                                 .000   -.2850 -.2883 -.2881
                                               30.000   -.2968 -.3066
                                               60.000   -.3003 -.3071
                                               90.000   -.2973 -.3121
                                              120.000   -.2914 -.2950
                                              135.000   -.2943 -.2855
                                              150.000   -.2903 -.2820
                                              165.000   -.2848 -.2794
                                              180.000   -.2823 -.2753
                                              195.000   -.2824 -.3020
                                              210.000   -.2826 -.3088
                                              225.000   -.2846 -.3056
                                              240.000   .0000 -.3018
                                              270.000   -.2790 -.3014
                                              300.000   -.2742 -.2895
                                              330.000   -.2815 -.2905

ALPHA (2) = -.390 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                                PHI
                                                 .000   -.2854 -.2912 -.2933
                                               30.000   -.2869 -.3029
                                               60.000   -.2892 -.2879
                                               90.000   -.2930 -.2962
                                              120.000   -.2894 -.3091
                                              135.000   -.2916 -.3087
                                              150.000   -.2975 -.3282
                                              165.000   -.2750 -.3135
                                              180.000   -.2730 -.2930
                                              195.000   -.2699 -.2898
                                              210.000   -.2692 -.2921
                                              225.000   -.2708 -.2852
                                              240.000   .0000 -.2816
                                              270.000   -.2738 -.2875
                                              300.000   -.2798 -.2846
                                              330.000   -.2844 -.2974

ARC11-014IA19 OTS+STRUT SRB-NOM MFS-OFF ET BASE   (REUI15)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.365 BETA (2) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.2610	-.2621	-.2597
30.000		-.2656	-.2804
60.000		-.2668	-.2695
90.000		-.2664	-.2869
120.000		-.2636	-.2715
135.000		-.2660	-.2678
150.000		-.2617	-.2650
165.000		-.2576	-.2636
180.000		-.2615	-.2507
195.000		-.2616	-.2724
210.000		-.2607	-.2825
225.000		-.2648	-.2794
240.000		.0000	-.2779
270.000		-.2521	-.2790
300.000		-.2490	-.2587
330.000		-.2563	-.2718

ALPHA (2) = -.294 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.2786	-.2837	-.2966
30.000		-.2788	-.2953
60.000		-.2791	-.2933
90.000		-.2746	-.2874
120.000		-.2697	-.2776
135.000		-.2742	-.2709
150.000		-.2745	-.2782
165.000		-.2726	-.2777
180.000		-.2755	-.2767
195.000		-.2787	-.3219
210.000		-.2856	-.3265
225.000		-.2929	-.3186
240.000		.0000	-.3182
270.000		-.2940	-.2997
300.000		-.2910	-.2939
330.000		-.2846	-.3148

ALPHA (3) = 3.834 BETA (1) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.2685	-.2597	-.2664
30.000		-.2726	-.2877
60.000		-.2759	-.2703
90.000		-.2759	-.2827
120.000		-.2711	-.2861
135.000		-.2746	-.2820
150.000		-.2735	-.2842
165.000		-.2643	-.2773
180.000		-.2674	-.2705
195.000		-.2571	-.2877

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REUI15)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.834 BETA (1) =   .012   RADIUS   .000   .333   .667
                                                   PHI
                                                   210.000   -.2646 -.2919
                                                   225.000   -.2668 -.2891
                                                   240.000   .0000 -.2820
                                                   270.000   -.2603 -.2778
                                                   300.000   -.2577 -.2602
                                                   330.000   -.2575 -.2867

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REUI16)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.095 BETA (1) =   .012   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2240 -.2172 -.2204
                                             30.000   -.2232 -.2356
                                             60.000   -.2253 -.2330
                                             90.000   -.2277 -.2390
                                            120.000   -.2276 -.2314
                                            135.000   -.2322 -.2328
                                            150.000   -.2310 -.2356
                                            165.000   -.2262 -.2321
                                            180.000   -.2248 -.2255
                                            195.000   -.2248 -.2457
                                            210.000   -.2268 -.2468
                                            225.000   -.2270 -.2390
                                            240.000   .0000 -.2316
                                            270.000   -.2212 -.2302
                                            300.000   -.2180 -.2246
                                            330.000   -.2172 -.2259

ALPHA (2) = -.393 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2218 -.2232 -.2158
                                             30.000   -.2256 -.2244
                                             60.000   -.2272 -.2283
                                             90.000   -.2322 -.2456
                                            120.000   -.2288 -.2741
                                            135.000   -.2275 -.2568
                                            150.000   -.2235 -.2741
                                            165.000   -.2170 -.2491
                                            180.000   -.2148 -.2249
                                            195.000   -.2136 -.2207
                                            210.000   -.2142 -.2196
                                            225.000   -.2145 -.2209
                                            240.000   .0000 -.2221
                                            270.000   -.2148 -.2207
                                            300.000   -.2133 -.2244
                                            330.000   -.2164 -.2280

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REUI16)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.291 BETA (2) = -.003   RADIUS   .000   .333   .667
                                            PHI
                                            .000   -.2129 -.2079 -.2013
                                            30.000   -.2124 -.2286
                                            60.000   -.2129 -.2201
                                            90.000   -.2164 -.2355
                                            120.000   -.2148 -.2251
                                            135.000   -.2181 -.2212
                                            150.000   -.2164 -.2176
                                            165.000   -.2115 -.2136
                                            180.000   -.2156 -.2085
                                            195.000   -.2135 -.2327
                                            210.000   -.2133 -.2396
                                            225.000   -.2166 -.2365
                                            240.000   .0000 -.2276
                                            270.000   -.2082 -.2249
                                            300.000   -.2006 -.2133
                                            330.000   -.2026 -.2107

ALPHA (2) = -.318 BETA (3) = 4.025   RADIUS   .000   .333   .667
                                            PHI
                                            .000   -.2265 -.2274 -.2172
                                            30.000   -.2167 -.2170
                                            60.000   -.2149 -.2199
                                            90.000   -.2122 -.2184
                                            120.000   -.2111 -.2233
                                            135.000   -.2187 -.2210
                                            150.000   -.2173 -.2250
                                            165.000   -.2170 -.2244
                                            180.000   -.2232 -.2179
                                            195.000   -.2229 -.2506
                                            210.000   -.2268 -.2690
                                            225.000   -.2305 -.2653
                                            240.000   .0000 -.2726
                                            270.000   -.2381 -.2455
                                            300.000   -.2347 -.2323
                                            330.000   -.2263 -.2325

ALPHA (3) = 3.861 BETA (1) = -.006   RADIUS   .000   .333   .667
                                            PHI
                                            .000   -.2083 -.1916 -.2087
                                            30.000   -.2064 -.1966
                                            60.000   -.2097 -.2063
                                            90.000   -.2109 -.2151
                                            120.000   -.2081 -.2109
                                            135.000   -.2091 -.2118
                                            150.000   -.2083 -.2140
                                            165.000   -.2019 -.2073
                                            180.000   -.2065 -.1974
                                            195.000   -.2022 -.2279

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REUT16)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.861 BETA (1) = -.006   RADIUS   .000   .333   .667
                                           PHI
                                          210.000   -.2089 -.2273
                                          225.000   -.2067 -.2402
                                          240.000   .0000 -.2247
                                          270.000   -.2038 -.2145
                                          300.000   -.1970 -.2008
                                          330.000   -.1945 -.1996

ARC11-014IA19 QTS+STRUT SRB-HI MPS-HI ET BASE   (REUI17)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF =. 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .009   RADIUS   .000   .333   .667
                                             PHI
                                               .000 -.3413 -.3429 -.3514
                                             30.000   -.3414 -.3684
                                             60.000   -.3490 -.3659
                                             90.000   -.3417 -.3712
                                            120.000   -.3380 -.3706
                                            135.000   -.3476 -.3365
                                            150.000   -.3356 -.3207
                                            165.000   -.3277 -.3219
                                            180.000   -.3350 -.3269
                                            195.000   -.3292 -.3616
                                            210.000   -.3347 -.3678
                                            225.000   -.3403 -.3570
                                            240.000   .0000 -.3464
                                            270.000   -.3271 -.3377
                                            300.000   -.3336 -.3523
                                            330.000   -.3342 -.3668

ALPHA (2) = -.426 BETA (1) = -4.003   RADIUS   .000   .333   .667
                                             PHI
                                               .000 -.3782 -.3911 -.3746
                                             30.000   -.3984 -.3958
                                             60.000   -.3932 -.3827
                                             90.000   -.3869 -.3702
                                            120.000   -.3810 -.3581
                                            135.000   -.3770 -.3476
                                            150.000   -.3753 -.3448
                                            165.000   -.3776 -.3474
                                            180.000   -.3772 -.3679
                                            195.000   -.3782 -.4047
                                            210.000   -.3828 -.4063
                                            225.000   -.3850 -.3808
                                            240.000   .0000 -.3776
                                            270.000   -.3873 -.3646
                                            300.000   -.3943 -.3766
                                            330.000   -.3944 -.3891

ARC11-014IA19 OTS+STRUT SRB-HI N'S-HI ET BASE   (REUI17)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.447 BETA (2) =   .009

RADIUS	.000	.333	.667
PHI			
.000	-.3571	-.3674	-.3333
30.000		-.3753	-.3793
60.000		-.3542	-.3566
90.000		-.3522	-.3677
120.000		-.3426	-.3641
135.000		-.3447	-.3483
150.000		-.3418	-.3354
165.000		-.3347	-.3230
180.000		-.3520	-.3287
195.000		-.3496	-.3657
210.000		-.3481	-.3855
225.000		-.3527	-.3631
240.000		.0000	-.3526
270.000		-.3552	-.3453
300.000		-.3601	-.3337
330.000		-.3623	-.3441

ALPHA (2) = -.435 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.3883	-.3910	-.3199
30.000		-.3799	-.3489
60.000		-.3585	-.3377
90.000		-.3516	-.3427
120.000		-.3565	-.3492
135.000		-.3595	-.3658
150.000		-.3475	-.3831
165.000		-.3449	-.3857
180.000		-.3877	-.3585
195.000		-.3863	-.3663
210.000		-.3839	-.3693
225.000		-.3983	-.3579
240.000		.0000	-.3598
270.000		-.3776	-.3285
300.000		-.3897	-.3218
330.000		-.3959	-.3407

ALPHA (3) = 3.934 BETA (1) =   .000

RADIUS	.000	.333	.667
PHI			
.000	-.3458	-.3684	-.3543
30.000		-.3775	-.3729
60.000		-.3920	-.3644
90.000		-.3896	-.3440
120.000		-.3742	-.3320
135.000		-.3738	-.3231
150.000		-.3679	-.3167
165.000		-.3604	-.3076
180.000		-.3383	-.3477
195.000		-.3449	-.3881

ARC11-014IA19 JTS+STRUT SRB-HI   MFS-HI   ET BASE .   (REUI17)

SECTION (1)ET BASE   DEPENDENT VARIABLE CF

ALPHA (3) = 3.930 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
210.000		-.3399	-.3997
225.000		-.3539	-.3748
240.000		.0000	-.3722
270.000		-.3611	-.3645
300.000		-.3551	-.3579
330.000		-.3639	-.3677

ARC11-014IA19 OTS+STRUT SRB-HI WFS-HI ET BASE   (REUI18)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

```
SREF  =  2690.0000 SQ.FT.    XMRP  =   976.0000 IN. XT          ELV-IB =    8.000   ELV-OB =    4.000
LREF  =  1290.3000 IN.       YMRP  =     .0000 IN. YT          RUDDER =     .000   MACH   =    1.100
BREF  =  1290.3000 IN.       ZMRP  =   400.0000 IN. ZT          GIMBAL =    1.000
SCALE =     .0200
```

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.098 BETA (1) =   .000

RADIUS	.000	.333	.667
PHI			
.000	-.3323	-.3372	-.3360
30.000		-.3431	-.3510
60.000		-.3347	-.3590
90.000		-.3364	-.3632
120.000		-.3311	-.3410
135.000		-.3330	-.3339
150.000		-.3299	-.3297
165.000		-.3252	-.3260
180.000		-.3311	-.3205
195.000		-.3350	-.3506
210.000		-.3371	-.3500
225.000		-.3405	-.3539
240.000		.0000	-.3550
270.000		-.3416	-.3563
300.000		-.3305	-.3463
330.000		-.3301	-.3431

ALPHA (2) = -.396 BETA (1) = -4.003

RADIUS	.000	.333	.667
PHI			
.000	-.3231	-.3325	-.3418
30.000		-.3283	-.3431
60.000		-.3300	-.3401
90.000		-.3361	-.3536
120.000		-.3350	-.3409
135.000		-.3405	-.3549
150.000		-.3361	-.3702
165.000		-.3267	-.3578
180.000		-.3236	-.3350
195.000		-.3185	-.3309
210.000		-.3169	-.3356
225.000		-.3194	-.3314
240.000		.0000	-.3329
270.000		-.3265	-.3419
300.000		-.3374	-.3537
330.000		-.3366	-.3409

ARC11-014IA19 OTS+STRUT SRB-HI NPS-HI ET BASE   (REUI18)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.438 BETA (2) =   .009

RADIUS	.000	.333	.667
PHI			
.000	-.2982	-.3097	-.3217
30.000		-.3152	-.3358
60.000		-.3171	-.3394
90.000		-.3196	-.3339
120.000		-.3105	-.3179
135.000		-.3115	-.3054
150.000		-.3065	-.3007
165.000		-.2999	-.2965
180.000		-.2991	-.2969
195.000		-.3006	-.3232
210.000		-.3019	-.3255
225.000		-.3030	-.3237
240.000		.0000	-.3287
270.000		-.2994	-.3272
300.000		-.3004	-.3395
330.000		-.3063	-.3264

ALPHA (2) = -.573 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.3044	-.3167	-.3325
30.000		-.3198	-.3391
60.000		-.3259	-.3455
90.000		-.3217	-.3235
120.000		-.3146	-.3120
135.000		-.3124	-.3083
150.000		-.3112	-.3110
165.000		-.3114	-.3162
180.000		-.3031	-.3203
195.000		-.3070	-.3490
210.000		-.3113	-.3567
225.000		-.3188	-.3459
240.000		.0000	-.3340
270.000		-.3185	-.3369
300.000		-.3147	-.3293
330.000		-.3145	-.3402

ALPHA (3) = 3.919 BETA (1) =   .000

RADIUS	.000	.333	.667
PHI			
.000	-.3336	-.3337	-.3407
30.000		-.3397	-.3568
60.000		-.3380	-.3494
90.000		-.3398	-.3564
120.000		-.3323	-.3393
135.000		-.3343	-.3339
150.000		-.3333	-.3267
165.000		-.3245	-.3246
180.000		-.3300	-.3235
195.000		-.3290	-.3521

ARC11-014IA19 OFS+STRUT SRB-HI MFS-HI ET BASE   (REUI18)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.915 BETA (1) = .000   RADIUS   .000   .333   .667
                                             PHI
                                             210.000   -.3310 -.3476
                                             225.000   -.3315 -.3415
                                             240.000   .0000 -.3386
                                             270.000   -.3293 -.3388
                                             300.000   -.3253 -.3319
                                             330.000   -.3290 -.3468

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI ET BASE   (REJI19)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.185 BETA (1) = -.009   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2376 -.2390 -.2381
                                              30.000   -.2420 -.2618
                                              60.000   -.2436 -.2550
                                              90.000   -.2417 -.2545
                                             120.000   -.2374 -.2413
                                             135.000   -.2376 -.2362
                                             150.000   -.2365 -.2304
                                             165.000   -.2340 -.2260
                                             180.000   -.2345 -.2258
                                             195.000   -.2356 -.2513
                                             210.000   -.2326 -.2544
                                             225.000   -.2333 -.2517
                                             240.000   .0000 -.2458
                                             270.000   -.2300 -.2417
                                             300.000   -.2242 -.2381
                                             330.000   -.2276 -.2421

ALPHA (2) = -.459 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2320 -.2301 -.2419
                                              30.000   -.2343 -.2465
                                              60.000   -.2350 -.2350
                                              90.000   -.2363 -.2365
                                             120.000   -.2352 -.2434
                                             135.000   -.2378 -.2518
                                             150.000   -.2369 -.2730
                                             165.000   -.2260 -.2639
                                             180.000   -.2235 -.2493
                                             195.000   -.2226 -.2465
                                             210.000   -.2243 -.2422
                                             225.000   -.2233 -.2369
                                             240.000   .0000 -.2273
                                             270.000   -.2254 -.2273
                                             300.000   -.2280 -.2314
                                             330.000   -.2280 -.2454

ARC11-014IA19 OTS+STRUT SRB-HI WFS-HI ET BASE   (REUI19)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.438 BETA (2) =   .012   RADIUS   .000   .333   .667
                                             PHI
                                                .000   -.2211 -.2112 -.2180
                                              30.000   -.2192 -.2365
                                              60.000   -.2187 -.2251
                                              90.000   -.2166 -.2371
                                             120.000   -.2155 -.2279
                                             135.000   -.2182 -.2239
                                             150.000   -.2165 -.2195
                                           · 165.000   -.2136 -.2168
                                             180.000   -.2176 -.2085
                                             195.000   -.2187 -.2334
                                             210.000   -.2186 -.2339
                                             225.000   -.2209 -.2309
                                             240.000   .0000 -.2285
                                             270.000   -.2142 -.2264
                                             300.000   -.2105 -.2138
                                             330.000   -.2131 -.2311

ALPHA (2) = -.544 BETA (3) = 4.028   RADIUS   .000   .333   .667
                                             PHI
                                                .000   -.2231 -.2284 -.2424
                                              30.000   -.2196 -.2424
                                              60.000   -.2260 -.2330
                                              90.000   -.2247 -.2238
                                             120.000   -.2234 -.2218
                                             135.000   -.2231 -.2230
                                             150.000   -.2221 -.2258
                                             165.000   -.2202 -.2312
                                             180.000   -.2147 -.2349
                                             195.000   -.2160 -.2670
                                             210.000   -.2240 -.2775
                                             225.000   -.2291 -.2709
                                             240.000   .0000 -.2666
                                             270.000   -.2281 -.2437
                                             300.000   -.2278 -.2333
                                             330.000   -.2286 -.2532

ALPHA (3) = 3.516 BETA (1) =   .012   RADIUS   .000   .333   .667
                                             PHI
                                                .000   -.2282 -.2205 -.2260
                                              30.000   -.2323 -.2439
                                              60.000   -.2361 -.2313
                                              90.000   -.2364 -.2406
                                             120.000   -.2323 -.2417
                                             135.000   -.2348 -.2348
                                             150.000   -.2340 -.2305
                                             165.000   -.2282 -.2261
                                             180.000   -.2240 -.2247
                                             195.000   -.2250 -.2490

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI ET BASE .   (REUI19)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.516 BETA (1) =   .012   RADIUS   .000   .333   .667
                                               PHI
                                               210.000   -.2248 -.2466
                                               225.000   -.2279 -.2435
                                               240.000   .0000 -.2408
                                               270.000   -.2227 -.2364
                                               300.000   -.2180 -.2293
                                               330.000   -.2190 -.2438

ARC11-014IA19 OTS+STRUT SRB-HI NFS-HI ET BASE   (REUI20)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .003   RADIUS   .000   .333   .667
                                             PHI
                                              .000   -.1754 -.1695 -.1602
                                             30.000   -.1780 -.1880
                                             60.000   -.1722 -.1783
                                             90.000   -.1735 -.1907
                                            120.000   -.1711 -.1839
                                            135.000   -.1726 -.1857
                                            150.000   -.1711 -.1756
                                            165.000   -.1668 -.1715
                                            180.000   -.1737 -.1645
                                            195.000   -.1748 -.1846
                                            210.000   -.1746 -.1882
                                            225.000   -.1746 -.1739
                                            240.000   .0000 -.1700
                                            270.000   -.1725 -.1702
                                            300.000   -.1690 -.1668
                                            330.000   -.1654 -.1707

ALPHA (2) = -.489 BETA (1) = -4.003   RADIUS   .000   .333   .667
                                             PHI
                                              .000   -.1661 -.1710 -.1574
                                             30.000   -.1792 -.1851
                                             60.000   -.1835 -.1819
                                             90.000   -.1842 -.1954
                                            120.000   -.1782 -.2033
                                            135.000   -.1765 -.2261
                                            150.000   -.1779 -.2339
                                            165.000   -.1694 -.2017
                                            180.000   -.1593 -.1799
                                            195.000   -.1570 -.1850
                                            210.000   -.1576 -.1787
                                            225.000   -.1613 -.1742
                                            240.000   .0000 -.1666
                                            270.000   -.1559 -.1632
                                            300.000   -.1554 -.1638
                                            330.000   -.1590 -.1652

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI ET BASE   (REVISED)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.436 BETA (2) = .009

RADIUS	.000	.333	.567
PHI			
.000	-.1584	-.1533	-.1455
30.000		-.1606	-.1863
60.000		-.1614	-.1746
90.000		-.1635	-.1739
120.000		-.1594	-.1626
135.000		-.1590	-.1589
150.000		-.1595	-.1552
165.000		-.1564	-.1509
180.000		-.1541	-.1484
195.000		-.1570	-.1722
210.000		-.1556	-.1726
225.000		-.1579	-.1681
240.000		.0000	-.1546
270.000		-.1553	-.1644
300.000		-.1490	-.1523
330.000		-.1472	-.1567

ALPHA (2) = -.486 BETA (3) = 4.025

RADIUS	.000	.333	.567
PHI			
.000	-.1713	-.1770	-.1665
30.000		-.1673	-.1630
60.000		-.1667	-.1682
90.000		-.1684	-.1649
120.000		-.1676	-.1676
135.000		-.1670	-.1645
150.000		-.1699	-.1621
165.000		-.1635	-.1606
180.000		-.1620	-.1643
195.000		-.1636	-.1937
210.000		-.1668	-.2073
225.000		-.1700	-.2045
240.000		.0000	-.2163
270.000		-.1838	-.2008
300.000		-.1841	-.1827
330.000		-.1801	-.1838

ALPHA (3) = 3.657 BETA (1) = .009

RADIUS	.000	.333	.667
PHI			
.000	-.1575	-.1461	-.1476
30.000		-.1563	-.1600
60.000		-.1671	-.1683
90.000		-.1699	-.1702
120.000		-.1609	-.1595
135.000		-.1597	-.1561
150.000		-.1603	-.1501
165.000		-.1555	-.1471
180.000		-.1530	-.1454
195.000		-.1529	-.1731

ARC11-014IA19 OTS+STRUT SRB-HI   MPS-HI   ET BASE   (REU120)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.657 BETA (1) =   .009   RADIUS   .000   .333   .667
                                               PHI
                                               210.000   -.1543 -.1739
                                               225.000   -.1561 -.1748
                                               240.000   .0000 -.1702
                                               270.000   -.1521 -.1645
                                               300.000   -.1450 -.1491
                                               330.000   -.1433 -.1441

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI21)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.200 BETA (1) = .003   RADIUS   .000   .333   .667
                                           PHI
                                             .000   -.2851 -.2896 -.2881
                                           30.000   -.2993 -.3229
                                           60.000   -.2992 -.3099
                                           90.000   -.2953 -.2999
                                          120.000   -.2933 -.3055
                                          135.000   -.2952 -.3295
                                          150.000   -.2950 -.3261
                                          165.000   -.2913 -.3116
                                          180.000   -.2933 -.3000
                                          195.000   -.2913 -.3181
                                          210.000   -.2891 -.3145
                                          225.000   -.2868 -.3108
                                          240.000   .0000 -.3093
                                          270.000   -.2811 -.3046
                                          300.000   -.2802 -.2972
                                          330.000   -.2845 -.2946

ALPHA (2) = -.180 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                           PHI
                                             .000   -.2744 -.2764 -.2768
                                           30.000   -.2804 -.2924
                                           60.000   -.2871 -.2859
                                           90.000   -.2939 -.3059
                                          120.000   -.2925 -.3146
                                          135.000   -.2947 -.3045
                                          150.000   -.2873 -.3127
                                          165.000   -.2798 -.3191
                                          180.000   -.2770 -.2761
                                          195.000   -.2700 -.2661
                                          210.000   -.2680 -.2633
                                          225.000   -.2652 -.2689
                                          240.000   .0000 -.2778
                                          270.000   -.2583 -.2808
                                          300.000   -.2674 -.2825
                                          330.000   -.2705 -.2828

ARC11-014TA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI21)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.291 BETA (2) = .012

RADIUS	.000	.333	.667
PHI			
.000	-.2548	-.2550	-.2527
30.000		-.2595	-.2757
60.000		-.2566	-.2662
90.000		-.2631	-.2784
120.000		-.2629	-.2704
135.000		-.2664	-.2600
150.000		-.2647	-.2566
165.000		-.2585	-.2557
180.000		-.2608	-.2464
195.000		-.2581	-.2682
210.000		-.2565	-.2687
225.000		-.2581	-.2874
240.000		.0000	-.2760
270.000		-.2550	-.2715
300.000		-.2397	-.2602
330.000		-.2445	-.2558

ALPHA (2) = -.300 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.2726	-.2724	-.2751
30.000		-.2696	-.2707
60.000		-.2734	-.2879
90.000		-.2655	-.2765
120.000		-.2614	-.2745
135.000		-.2642	-.2663
150.000		-.2656	-.2680
165.000		-.2639	-.2754
180.000		-.2675	-.2627
195.000		-.2712	-.2859
210.000		-.2710	-.2941
225.000		-.2789	-.3116
240.000		.0000	-.3321
270.000		-.2871	-.2955
300.000		-.2814	-.2816
330.000		-.2744	-.2841

ALPHA (3) = 3.969 BETA (1) = .006

RADIUS	.000	.333	.667
PHI			
.000	-.2471	-.2284	-.2525
30.000		-.2415	-.2460
60.000		-.2509	-.2499
90.000		-.2565	-.2584
120.000		-.2542	-.2562
135.000		-.2590	-.2595
150.000		-.2587	-.2551
165.000		-.2530	-.2492
180.000		-.2531	-.2392
195.000		-.2523	-.2647

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.969 BETA (1) =   .006   RADIUS   .000   .333   .667
                                            PHI
                                            210.000   -.2528 -.2565
                                            225.000   -.2492 -.2944
                                            240.000   .0000 -.2698
                                            270.000   -.2444 -.2516
                                            300.000   -.2355 -.2369
                                            330.000   -.2346 -.2409

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REVI22)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.16† BETA (1) =   .006   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.2147 -.2084 -.2103
                                              30.000   -.2132 -.2271
                                              60.000   -.2134 -.2202
                                              90.000   -.2162 -.2309
                                             120.000   -.2148 -.2250
                                             135.000   -.2148 -.2214
                                             150.000   -.2145 -.2164
                                             165.000   -.2115 -.2118
                                             180.000   -.2135 -.2078
                                             195.000   -.2133 -.2270
                                             210.000   -.2144 -.2316
                                             225.000   -.2129 -.2200
                                             240.000   .0000 -.2155
                                             270.000   -.2102 -.2147
                                             300.000   -.2059 -.2120
                                             330.000   -.2040 -.2124

ALPHA (2) = -.348 BETA (1) = -3.997   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.2110 -.2178 -.2064
                                              30.000   -.2206 -.2284
                                              60.000   -.2257 -.2228
                                              90.000   -.2301 -.2409
                                             120.000   -.2212 -.2417
                                             135.000   -.2219 -.2463
                                             150.000   -.2198 -.2600
                                             165.000   -.2088 -.2429
                                             180.000   -.2076 -.2177
                                             195.000   -.2037 -.2129
                                             210.000   -.2042 -.2067
                                             225.000   -.2050 -.2074
                                             240.000   .0000 -.2105
                                             270.000   -.2059 -.2104
                                             300.000   -.2034 -.2090
                                             330.000   -.2065 -.2109

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REVI22)

SECTION (1)ET BASE   DEPENDENT VARIABLE CF

ALPHA (2) = -.388 BETA (2) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.1974	-.1946	-.1907
30.000		-.1996	-.2230
60.000		-.1976	-.2141
90.000		-.2018	-.2163
120.000		-.2001	-.2044
135.000		-.2008	-.1991
150.000		-.2004	-.1947
165.000		-.1950	-.1937
180.000		-.1971	-.1857
195.000		-.1957	-.2080
210.000		-.1954	-.2148
225.000		-.1980	-.2106
240.000		.0000	-.2072
270.000		-.1944	-.2083
300.000		-.1867	-.1971
330.000		-.1886	-.1956

ALPHA (2) = -.522 BETA (3) = 4.031

RADIUS	.000	.333	.667
PHI			
.000	-.2113	-.2164	-.2118
30.000		-.2065	-.2042
60.000		-.2046	-.2068
90.000		-.2006	-.2030
120.000		-.2006	-.2105
135.000		-.2066	-.2093
150.000		-.2035	-.2112
165.000		-.2055	-.2098
180.000		-.2030	-.2014
195.000		-.2036	-.2262
210.000		-.2103	-.2417
225.000		-.2127	-.2468
240.000		.0000	-.2567
270.000		-.2243	-.2361
300.000		-.2253	-.2203
330.000		-.2197	-.2243

ALPHA (3) = 3.942 BETA (1) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.1988	-.1820	-.1998
30.000		-.1967	-.1952
60.000		-.2051	-.2068
90.000		-.2082	-.2116
120.000		-.2000	-.2020
135.000		-.2037	-.1991
150.000		-.2001	-.1947
165.000		-.1960	-.1888
180.000		-.1975	-.1843
195.000		-.1994	-.2125

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI22)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.942 BETA (1) =   .012   RADIUS   .000   .333   .667
                                               PHI
                                               210.000   -.1967 -.2119
                                               225.000   -.1992 -.2264
                                               240.000   .0000 -.2143
                                               270.000   -.1929 -.2024
                                               300.000   -.1876 -.1877
                                               330.000   -.1847 -.1865

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI23)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.047 BETA (1) = .000

PHI \ RADIUS	.000	.333	.667
.000	-.3445	-.3610	-.3764
30.000		-.3606	-.3886
60.000		-.3660	-.3740
90.000		-.3634	-.3546
120.000		-.3591	-.3570
135.000		-.3554	-.3249
150.000		-.3530	-.3114
165.000		-.3451	-.3011
180.000		-.3335	-.3388
195.000		-.3436	-.3823
210.000		-.3430	-.3959
225.000		-.3499	-.3792
240.000		.0000	-.3711
270.000		-.3562	-.3670
300.000		-.3559	-.3735
330.000		-.3559	-.3852

ALPHA (2) = -.276 BETA (1) = -4.003

PHI \ RADIUS	.000	.333	.667
.000	-.3597	-.3815	-.3872
30.000		-.3799	-.3977
60.000		-.3854	-.3845
90.000		-.3867	-.3666
120.000		-.3758	-.3492
135.000		-.3770	-.3349
150.000		-.3731	-.3305
165.000		-.3718	-.3295
180.000		-.3565	-.3619
195.000		-.3595	-.3995
210.000		-.3641	-.4097
225.000		-.3682	-.3850
240.000		.0000	-.3831
270.000		-.3724	-.3738
300.000		-.3781	-.3839
330.000		-.3837	-.3967

ARC11-014IA19 OTS+STRUT SRB-OFF MFS-OFF ET BASE   (REV123)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.237 BETA (2) =   .009

RADIUS	.000	.333	.667
PHI			
.000	-.3387	-.3368	-.2977
30.000		-.3411	-.3378
60.000		-.3251	-.3220
90.000		-.3171	-.3521
120.000		-.3046	-.3470
135.000		-.3024	-.3265
150.000		-.2985	-.3098
165.000		-.2905	-.2967
180.000		-.3245	-.2798
195.000		-.3337	-.3159
210.000		-.3369	-.3459
225.000		-.3396	-.3286
240.000		.0000	-.3169
270.000		-.3429	-.3163
300.000		-.3390	-.3091
330.000		-.3490	-.3194

ALPHA (2) = -.195 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.3642	-.3620	-.3362
30.000		-.3594	-.3583
60.000		-.3475	-.3438
90.000		-.3390	-.3428
120.000		-.3345	-.3495
135.000		-.3276	-.3623
150.000		-.3196	-.3777
165.000		-.3241	-.3835
180.000		-.3646	-.3626
195.000		-.3577	-.3491
210.000		-.3692	-.3669
225.000		-.3644	-.3393
240.000		.0000	-.3300
270.000		-.3616	-.3321
300.000		-.3596	-.3347
330.000		-.3598	-.3419

ALPHA (3) = 3.859 BETA (1) =   .003

RADIUS	.000	.333	.667
PHI			
.000	-.3360	-.3505	-.3227
30.000		-.3525	-.3467
60.000		-.3477	-.3420
90.000		-.3371	-.3439
120.000		-.3288	-.3306
135.000		-.3324	-.3179
150.000		-.3226	-.3065
165.000		-.3218	-.2974
180.000		-.3236	-.3010
195.000		-.3299	-.3465

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI23)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.855 BETA (1) =   .003   RADIUS   .000   .333   .667
                                                 PHI
                                                 210.000   -.3387 -.3696
                                                 225.000   -.3423 -.3492
                                                 240.000   .0000 -.3378
                                                 270.000   -.3419 -.3410
                                                 300.000   -.3407 -.3341
                                                 330.000   -.3491 -.3473

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REU124)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .009   RADIUS   .000   .333   .667
                                                PHI
                                                 .000   -.4201 -.4281 -.4343
                                               30.000   -.4295 -.4423
                                               60.000   -.4246 -.4579
                                               90.000   -.4265 -.4596
                                              120.000   -.4261 -.4348
                                              135.000   -.4273 -.4285
                                              150.000   -.4245 -.4219
                                              165.000   -.4178 -.4192
                                              180.000   -.4205 -.4105
                                              195.000   -.4233 -.4422
                                              210.000   -.4261 -.4460
                                              225.000   -.4306 -.4426
                                              240.000   .0000 -.4520
                                              270.000   -.4311 -.4566
                                              300.000   -.4222 -.4428
                                              330.000   -.4197 -.4346

ALPHA (2) = -.279 BETA (1) = -4.003   RADIUS   .000   .333   .667
                                                PHI
                                                 .000   -.4363 -.4469 -.4628
                                               30.000   -.4462 -.4662
                                               60.000   -.4488 -.4540
                                               90.000   -.4544 -.4593
                                              120.000   -.4510 -.4622
                                              135.000   -.4560 -.4709
                                              150.000   -.4554 -.4947
                                              165.000   -.4403 -.4940
                                              180.000   -.4355 -.4294
                                              195.000   -.4290 -.4452
                                              210.000   -.4281 -.4403
                                              225.000   -.4278 -.4393
                                              240.000   .0000 -.4393
                                              270.000   -.4406 -.4558
                                              300.000   -.4474 -.4621
                                              330.000   -.4506 -.4593

ARC11-014TA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI24)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.246 BETA (2) = .009

PHI	RADIUS .000	.333	.667
.000	-.3809	-.4034	-.4147
30.000		-.4056	-.4259
60.000		-.4051	-.4295
90.000		-.4075	-.4419
120.000		-.4041	-.4196
135.000		-.4017	-.3961
150.000		-.3997	-.3898
165.000		-.3885	-.3867
180.000		-.3904	-.3802
195.000		-.3892	-.3987
210.000		-.3901	-.4114
225.000		-.3929	-.4105
240.000		.0000	-.4182
270.000		-.3929	-.4197
300.000		-.3963	-.4304
330.000		-.3988	-.4171

ALPHA (2) = -.273 BETA (3) = 4.025

PHI	RADIUS .000	.333	.667
.000	-.4350	-.4387	-.4524
30.000		-.4405	-.4563
60.000		-.4410	-.4579
90.000		-.4325	-.4484
120.000		-.4229	-.4317
135.000		-.4239	-.4271
150.000		-.4210	-.4377
165.000		-.4184	-.4396
180.000		-.4237	-.4229
195.000		-.4291	-.4619
210.000		-.4347	-.4854
225.000		-.4403	-.4548
240.000		.0000	-.4483
270.000		-.4410	-.4477
300.000		-.4388	-.4456
330.000		-.4418	-.4545

ALPHA (3) = 3.804 BETA (1) = -.003

PHI	RADIUS .000	.333	.667
.000	-.4119	-.4113	-.4288
30.000		-.4199	-.4452
60.000		-.4189	-.4376
90.000		-.4199	-.4416
120.000		-.4138	-.4285
135.000		-.4165	-.4144
150.000		-.4131	-.4077
165.000		-.4064	-.4063
180.000		-.4100	-.3982
195.000		-.4085	-.4260

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI24)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.804 BETA (1) = -.003   RADIUS   .000   .333   .667
                                             PHI
                                             210.000   -.4095 -.4283
                                             225.000   -.4105 -.4253
                                             240.000   .0000 -.4241
                                             270.000   -.4056 -.4279
                                             300.000   -.4040 -.4184
                                             330.000   -.4042 -.4257

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI25)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.975 BETA (1) =   .003   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.3402 -.3472 -.3605
                                              30.000   -.3528 -.3732
                                              60.000   -.3549 -.3738
                                              90.000   -.3581 -.3760
                                             120.000   -.3515 -.3514
                                             135.000   -.3494 -.3426
                                             150.000   -.3477 -.3361
                                             165.000   -.3401 -.3328
                                             180.000   -.3403 -.3256
                                             195.000   -.3394 -.3496
                                             210.000   -.3395 -.3667
                                             225.000   -.3413 -.3606
                                             240.000   .0000 -.3602
                                             270.000   -.3381 -.3634
                                             300.000   -.3399 -.3557
                                             330.000   -.3424 -.3544

ALPHA (2) = -.255 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.3592 -.3536 -.3762
                                              30.000   -.3594 -.3958
                                              60.000   -.3674 -.3722
                                              90.000   -.3681 -.3783
                                             120.000   -.3577 -.3667
                                             135.000   -.3606 -.3640
                                             150.000   -.3549 -.3824
                                             165.000   -.3434 -.3775
                                             180.000   -.3436 -.3436
                                             195.000   -.3368 -.3527
                                             210.000   -.3327 -.3496
                                             225.000   -.3364 -.3462
                                             240.000   .0000 -.3471
                                             270.000   -.3398 -.3570
                                             300.000   -.3427 -.3551
                                             330.000   -.3452 -.3720

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.280 BETA (2) = .012

RADIUS	.000	.333	.667
PHI			
.000	-.3167	-.3193	-.3277
30.000		-.3220	-.3373
60.000		-.3210	-.3304
90.000		-.3250	-.3466
120.000		-.3205	-.3273
135.000		-.3238	-.3208
150.000		-.3201	-.3162
165.000		-.3152	-.3144
180.000		-.3180	-.3021
195.000		-.3164	-.3216
210.000		-.3142	-.3393
225.000		-.3180	-.3328
240.000		.0000	-.3317
270.000		-.3146	-.3339
300.000		-.3084	-.3192
330.000		-.3137	-.3277

ALPHA (2) = -.189 BETA (3) = 4.031

RADIUS	.000	.333	.667
PHI			
.000	-.3448	-.3501	-.3701
30.000		-.3479	-.3696
60.000		-.3491	-.3639
90.000		-.3416	-.3516
120.000		-.3333	-.3480
135.000		-.3387	-.3431
150.000		-.3364	-.3428
165.000		-.3351	-.3429
180.000		-.3388	-.3335
195.000		-.3448	-.3635
210.000		-.3497	-.3797
225.000		-.3545	-.3674
240.000		.0000	-.3749
270.000		-.3596	-.3677
300.000		-.3586	-.3621
330.000		-.3514	-.3874

ALPHA (3) = 4.005 BETA (1) = .003

RADIUS	.000	.333	.667
PHI			
.000	-.3307	-.3193	-.3309
30.000		-.3338	-.3518
60.000		-.3364	-.3346
90.000		-.3417	-.3470
120.000		-.3358	-.3490
135.000		-.3385	-.3443
150.000		-.3392	-.3374
165.000		-.3314	-.3341
180.000		-.3307	-.3229
195.000		-.3265	-.3481

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI25)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 4.005 BETA (1) =   .003   RADIUS   .000   .333   .667
                                              PHI .
                                              210.000   -.3265 -.3425
                                              225.000   -.3231 -.3588
                                              240.000   .0000 -.3429
                                              270.000   -.3225 -.3367
                                              300.000   -.3169 -.3201
                                              330.000   -.3177 -.3575

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI26)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.909 BETA (1) =   .009

RADIUS	.000	.333	.667
PHI			
.000	-.2937	-.2926	-.2965
30.000		-.3086	-.3272
60.000		-.3057	-.3155
90.000		-.3061	-.3112
120.000		-.3022	-.3162
135.000		-.3074	-.3183
150.000		-.3055	-.3169
165.000		-.3007	-.2984
180.000		-.2976	-.3057
195.000		-.2958	-.3242
210.000		-.2946	-.3191
225.000		-.2949	-.3206
240.000		.0000	-.3197
270.000		-.2887	-.3158
300.000		-.2820	-.3054
330.000		-.2902	-.3035

ALPHA (2) = -.243 BETA (1) = -4.000

RADIUS	.000	.333	.667
PHI			
.000	-.2872	-.2910	-.2892
30.000		-.2922	-.3048
60.000		-.2991	-.2988
90.000		-.3072	-.3154
120.000		-.3016	-.3322
135.000		-.3089	-.3202
150.000		-.3050	-.3219
165.000		-.2924	-.3336
180.000		-.2900	-.2880
195.000		-.2852	-.2758
210.000		-.2824	-.2761
225.000		-.2908	-.2805
240.000		.0000	-.2905
270.000		-.2737	-.2942
300.000		-.2819	-.2963
330.000		-.2846	-.2977

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI26)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.231 BETA (2) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.2696	-.2728	-.2714
30.000		-.2721	-.2919
60.000		-.2704	-.2849
90.000		-.2790	-.2943
120.000		-.2770	-.2843
135.000		-.2798	-.2726
150.000		-.2781	-.2695
165.000		-.2706	-.2678
180.000		-.2738	-.2586
195.000		-.2714	-.2837
210.000		-.2731	-.2835
225.000		-.2707	-.3058
240.000		.0000	-.2943
270.000		-.2698	-.2882
300.000		-.2576	-.2724
330.000		-.2598	-.2710

ALPHA (2) = -.234 BETA (3) = 4.031

RADIUS	.000	.333	.667
PHI			
.000	-.2893	-.2887	-.2892
30.000		-.2906	-.2877
60.000		-.2925	-.3011
90.000		-.2833	-.2952
120.000		-.2788	-.2909
135.000		-.2817	-.2849
150.000		-.2841	-.2866
165.000		-.2799	-.2927
180.000		-.2856	-.2754
195.000		-.2884	-.3016
210.000		-.2924	-.3101
225.000		-.2965	-.3304
240.000		.0000	-.3518
270.000		-.3029	-.3112
300.000		-.2985	-.2964
330.000		-.2881	-.3005

ALPHA (3) = 4.047 BETA (1) =   .006

RADIUS	.000	.333	.667
PHI			
.000	-.2639	-.2452	-.2756
30.000		-.2581	-.2729
60.000		-.2697	-.2679
90.000		-.2731	-.2768
120.000		-.2711	-.2716
135.000		-.2757	-.2735
150.000		-.2779	-.2649
165.000		-.2707	-.2627
180.000		-.2667	-.2564
195.000		-.2662	-.2840

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REU126)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 4.04 BETA (1) =   .006   RADIUS   .000   .333   .667
                                                 PHI
                                                 210.000   -.2673 -.2739
                                                 225.000   -.2672 -.3132
                                                 240.000   .0000 -.2918
                                                 270.000   -.2637 -.2701
                                                 300.000   -.2550 -.2528
                                                 330.000   -.2530 -.2736

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE　　　　　　　(REUI27)　(04 FEB 75)

REFERENCE DATA　　　　　　　　　　　　　　　　　　　　　　　　PARAMETRIC DATA

SREF　=　2690.0000 SQ.FT.　XMRP　=　976.0000 IN. XT　　　　ELV-IB =　　.000　ELV-OB =　　.000
LREF　=　1290.3000 IN.　　YMRP　=　　.0000 IN. YT　　　　RUDDER =　　.000　MACH　 =　　.900
BREF　=　1290.3000 IN.　　ZMRP　=　400.0000 IN. ZT　　　　GIMBAL =　1.000
SCALE =　　.0200

SECTION (1)ET BASE　　　　　　　　　　DEPENDENT VARIABLE CP

ALPHA (1) = -4.125　BETA (1) =　.000

RADIUS	.000	.333	.667
PHI			
.000	-.3882	-.3856	-.3925
30.000		-.3928	-.4168
60.000		-.3939	-.4110
90.000		-.3979	-.3985
120.000		-.3919	-.3995
135.000		-.3869	-.3768
150.000		-.3806	-.3561
165.000		-.3797	-.3491
180.000		-.3736	-.3691
195.000		-.3850	-.4130
210.000		-.3942	-.4311
225.000		-.3934	-.4130
240.000		.0000	-.4003
270.000		-.3941	-.3869
300.000		-.3878	-.4001
330.000		-.3900	-.4064

ALPHA (2) = -.396　BETA (1) = -4.003

RADIUS	.000	.333	.667
PHI			
.000	-.3922	-.4124	-.4107
30.000		-.4048	-.4255
60.000		-.4048	-.4095
90.000		-.4018	-.4047
120.000		-.3896	-.3882
135.000		-.3969	-.3578
150.000		-.3913	-.3536
165.000		-.3909	-.3592
180.000		-.3976	-.3765
195.000		-.3972	-.4225
210.000		-.3964	-.4337
225.000		-.3988	-.4099
240.000		.0000	-.3989
270.000		-.4044	-.4007
300.000		-.4078	-.4139
330.000		-.4076	-.4217

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI27)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.408 BETA (2) =   .009

RADIUS	.000	.333	.667
PHI			
.000	-.3736	-.3728	-.3583
30.000		-.3782	-.3924
60.000		-.3682	-.3799
90.000		-.3641	-.3978
120.000		-.3627	-.3986
135.000		-.3532	-.3758
150.000		-.3553	-.3530
165.000		-.3569	-.3314
180.000		-.3639	-.3401
195.000		-.3607	-.3799
210.000		-.3645	-.4053
225.000		-.3747	-.3827
240.000		.0000	-.3756
270.000		-.3689	-.3668
300.000		-.3667	-.3631
330.000		-.3681	-.3757

ALPHA (2) = -.336 BETA (3) = 4.925

RADIUS	.000	.333	.667
PHI			
.000	-.4088	-.3953	-.3951
30.000		-.4022	-.4154
60.000		-.4029	-.3926
90.000		-.3968	-.3775
120.000		-.3918	-.3909
135.000		-.3904	-.3977
150.000		-.3964	-.4141
165.000		-.3924	-.3852
180.000		-.4171	-.4180
195.000		-.3879	-.4256
210.000		-.3977	-.4331
225.000		-.4056	-.4158
240.000		.0000	-.3997
270.000		-.4006	-.3985
300.000		-.3997	-.3906
330.000		-.4026	-.4051

ALPHA (3) = 3.792 BETA (1) = -.003

RADIUS	.000	.333	.667
PHI			
.000	-.3743	-.3770	-.3526
30.000		-.3830	-.3812
60.000		-.3690	-.3663
90.000		-.3603	-.3941
120.000		-.3546	-.3927
135.000		-.3536	-.3645
150.000		-.3519	-.3554
165.000		-.3492	-.3459
180.000		-.3691	-.3363
195.000		-.3655	-.3844

ARC11-014IA19 OTS+STRUT SRB-N04 MPS-NOM ET BASE   (REU127)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.792 BETA (1) = -.003

RADIUS	.000	.333	.667
PHI			
210.000		-.3705	-.3981
225.000		-.3665	-.3834
240.000		.0000	-.3609
270.000		-.3672	-.3651
300.000		-.3714	-.3613
330.000		-.3748	-.3739

TABULATED SOURCE PRESSURE DATA - IA19 (ARC 11-014)

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI28)   (04 FEB 75)

REFERENCE DATA

PARAMETRIC DATA

SREF =	2695.0000 SQ.FT.	XMRP =	976.0000 IN. XT		
LREF =	1290.3000 IN.	YMRP =	.0000 IN. YT	ELV-IB = .000	ELV-OB = .000
BREF =	1290.3000 IN.	ZMRP =	400.0000 IN. ZT	RUDDER = .000	MACH = 1.100
SCALE =	.0200			GIMBAL = 1.000	

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .003

RADIUS PHI	.000	.333	.667
.000	-.4033	-.4084	-.4104
30.000		-.4103	-.4222
60.000		-.4025	-.4285
90.000		-.4061	-.4361
120.000		-.4020	-.4187
135.000		-.4003	-.4054
150.000		-.3996	-.3991
165.000		-.3952	-.3960
180.000		-.3994	-.3904
195.000		-.4009	-.4199
210.000		-.4043	-.4210
225.000		-.4103	-.4191
240.000		.0000	-.4303
270.000		-.4109	-.4286
300.000		-.3996	-.4154
330.000		-.4023	-.4128

ALPHA (2) = -.465 BETA (1) = -4.003

RADIUS PHI	.000	.333	.667
.000	-.3948	-.4003	-.4114
30.000		-.3977	-.4145
60.000		-.3977	-.4040
90.000		-.4053	-.4129
120.000		-.4043	-.4158
135.000		-.4115	-.4427
150.000		-.4086	-.4553
165.000		-.4092	-.4486
180.000		-.3945	-.3927
195.000		-.3872	-.4072
210.000		-.3845	-.4036
225.000		-.3836	-.3978
240.000		.0000	-.3992
270.000		-.3974	-.4133
300.000		-.4049	-.4191
330.000		-.4054	-.4086

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI28)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.447 BETA (2) =   .012   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.3545 -.3701 -.3792
                                              30.000   -.3708 -.3983
                                              60.000   -.3699 -.3948
                                              90.000   -.3709 -.3968
                                             120.000   -.3665 -.3832
                                             135.000   -.3658 -.3648
                                             150.000   -.3622 -.3581
                                             165.000   -.3558 -.3557
                                             180.000   -.3584 -.3495
                                             195.000   -.3582 -.3710
                                             210.000   -.3586 -.3782
                                             225.000   -.3582 -.3752
                                             240.000   .0000 -.3799
                                             270.000   -.3572 -.3842
                                             300.000   -.3616 -.3937
                                             330.000   -.3661 -.3799

ALPHA (2) = -.405 BETA (3) =   4.031   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.3932 -.4000 -.4101
                                              30.000   -.4010 -.4066
                                              60.000   -.4035 -.4136
                                              90.000   -.3967 -.4069
                                             120.000   -.3865 -.3934
                                             135.000   -.3863 -.3924
                                             150.000   -.3837 -.3983
                                             165.000   -.3795 -.4065
                                             180.000   -.3843 -.3896
                                             195.000   -.3916 -.4223
                                             210.000   -.3961 -.4434
                                             225.000   -.3994 -.4146
                                             240.000   .0000 -.4072
                                             270.000   -.3991 -.4035
                                             300.000   -.3989 -.3977
                                             330.000   -.3994 -.4101

ALPHA (3) = 3.819 BETA (1) =   .009   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.3840 -.3824 -.3947
                                              30.000   -.3911 -.4128
                                              60.000   -.3992 -.4034
                                              90.000   -.3937 -.4093
                                             120.000   -.3835 -.3961
                                             135.000   -.3877 -.3872
                                             150.000   -.3840 -.3777
                                             165.000   -.3757 -.3757
                                             180.000   -.3801 -.3691
                                             195.000   -.3789 -.3963

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI28)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.819 BETA (1) =   .009   RADIUS   .000   .333   .667
                                                  PHI
                                                  210.000   -.3804 -.3995
                                                  225.000   -.3811 -.3992
                                                  240.000   .0000 -.3905
                                                  270.000   -.3786 -.3947
                                                  300.000   -.3740 -.3846
                                                  330.000   -.3765 -.3941

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI29)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   = 1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) =   .006   RADIUS   .000   .333   .667
                                             PHI
                                              .000   -.2836 -.2865 -.2937
                                            30.000   -.2900 -.3131
                                            60.000   -.2905 -.3070
                                            90.000   -.2907 -.3076
                                           120.000   -.2851 -.2936
                                           135.000   -.2856 -.2817
                                           150.000   -.2841 -.2759
                                           165.000   -.2775 -.2716
                                           180.000   -.2804 -.2693
                                           195.000   -.2804 -.2908
                                           210.000   -.2807 -.3039
                                           225.000   -.2820 -.2982
                                           240.000   .0000 -.2952
                                           270.000   -.2780 -.3001
                                           300.000   -.2769 -.2905
                                           330.000   -.2820 -.2932

ALPHA (2) = -.37? BETA (1) = -3.997   RADIUS   .000   .333   .667
                                             PHI
                                              .000   -.2853 -.2879 -.2994
                                            30.000   -.2890 -.3168
                                            60.000   -.2949 -.2993
                                            90.000   -.2977 -.3011
                                           120.000   -.2917 -.3010
                                           135.000   -.2939 -.3110
                                           150.000   -.2924 -.3275
                                           165.000   -.2827 -.3148
                                           180.000   -.2757 -.2816
                                           195.000   -.2717 -.2966
                                           210.000   -.2702 -.2931
                                           225.000   -.2718 -.2829
                                           240.000   .0000 -.2783
                                           270.000   -.2732 -.2843
                                           300.000   -.2780 -.2821
                                           330.000   -.2794 -.2970

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI29)

SECTION (1)ET BASE .   DEPENDENT VARIABLE CP

ALPHA (2) = -.408 BETA (2) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.2636	-.2621	-.2717
30.000		-.2587	-.2874
60.000		-.2648	-.2777
90.000		-.2686	-.2873
120.000		-.2537	-.2744
135.000		-.2661	-.2665
150.000		-.2619	-.2603
165.000		-.2592	-.2560
180.000		-.2614	-.2492
195.000		-.2605	-.2683
210.000		-.2625	-.2774
225.000		-.2617	-.2737
240.000		.0000	-.2728
270.000		-.2598	-.2767
300.000		-.2525	-.2616
330.000		-.2581	-.2809

ALPHA (2) = -.381 BETA (3) = 4.031

RADIUS	.000	.333	.667
PHI			
.000	-.2842	-.2898	-.3029
30.000		-.2846	-.2987
60.000		-.2903	-.2976
90.000		-.2825	-.2892
120.000		-.2789	-.2840
135.000		-.2778	-.2801
150.000		-.2796	-.2838
165.000		-.2744	-.2817
180.000		-.2791	-.2769
195.000		-.2801	-.3128
210.000		-.2846	-.3213
225.000		-.2888	-.3050
240.000		.0000	-.3040
270.000		-.2957	-.3016
300.000		-.2924	-.2949
330.000		-.2905	-.3157

ALPHA (3) = 3.843 BETA (1) =   .003

RADIUS	.000	.333	.667
PHI			
.000	-.2734	-.2624	-.2713
30.000		-.2746	-.2948
60.000		-.2802	-.2806
90.000		-.2832	-.2895
120.000		-.2765	-.2913
135.000		-.2792	-.2801
150.000		-.2763	-.2702
165.000		-.2695	-.2640
180.000		-.2715	-.2618
195.000		-.2689	-.2865

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI29)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.843 BETA (1) =   .003   RADIUS   .000   .333   .667
                                                PHI
                                                210.000   -.2673   -.2859
                                                225.000   -.2665   -.2937
                                                240.000   .0000   -.2826
                                                270.000   -.2658   -.2803
                                                300.000   -.2570   -.2641
                                                330.000   -.2599   -.2904

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REVI30)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.224 BETA (1) =   .006   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.2124 -.2079 -.2134
                                               30.000   -.2132 -.2341
                                               60.000   -.2142 -.2243
                                               90.000   -.2170 -.2307
                                              120.000   -.2122 -.2215
                                              135.000   -.2155 -.2155
                                              150.000   -.2142 -.2088
                                              165.000   -.2114 -.2071
                                              180.000   -.2093 -.2072
                                              195.000   -.2105 -.2273
                                              210.000   -.2088 -.2344
                                              225.000   -.2099 -.2231
                                              240.000   .0000 -.2198
                                              270.000   -.2085 -.2190
                                              300.000   -.2053 -.2170
                                              330.000   -.2045 -.2167

ALPHA (2) = -.444 BETA (1) = -3.997   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.2164 -.2213 -.2162
                                               30.000   -.2246 -.2323
                                               60.000   -.2343 -.2339
                                               90.000   -.2392 -.2503
                                              120.000   -.2281 -.2441
                                              135.000   -.2284 -.2592
                                              150.000   -.2232 -.2641
                                              165.000   -.2151 -.2498
                                              180.000   -.2170 -.2253
                                              195.000   -.2151 -.2179
                                              210.000   -.2120 -.2169
                                              225.000   -.2129 -.2174
                                              240.000   .0000 -.2173
                                              270.000   -.2072 -.2229
                                              300.000   -.2123 -.2225
                                              330.000   -.2139 -.2213

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REVI30)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.405 BETA (2) =   .016 | RADIUS | .000 | .333 | .667 |
|---|---|---|---|
| PHI | | | |
| .000 | -.2071 | -.1980 | -.1973 |
| 30.000 | | -.2025 | -.2297 |
| 60.000 | | -.2012 | -.2173 |
| 90.000 | | -.2047 | -.2274 |
| 120.000 | | -.2025 | -.2119 |
| 135.000 | | -.2042 | -.2072 |
| 150.000 | | -.2011 | -.2021 |
| 165.000 | | -.1992 | -.2002 |
| 180.000 | | -.2040 | -.1890 |
| 195.000 | | -.2015 | -.2120 |
| 210.000 | | -.2017 | -.2217 |
| 225.000 | | -.2006 | -.2165 |
| 240.000 | | .0000 | -.2121 |
| 270.000 | | -.1978 | -.2177 |
| 300.000 | | -.1893 | -.2039 |
| 330.000 | | -.1914 | -.2043 |

ALPHA (2) = -.360 BETA (3) = 4.031 | RADIUS | .000 | .333 | .667 |
|---|---|---|---|
| PHI | | | |
| .000 | -.2164 | -.2174 | -.2147 |
| 30.000 | | -.2067 | -.2080 |
| 60.000 | | -.2068 | -.2134 |
| 90.000 | | -.2027 | -.2161 |
| 120.000 | | -.2072 | -.2161 |
| 135.000 | | -.2072 | -.2104 |
| 150.000 | | -.2071 | -.2112 |
| 165.000 | | -.2024 | -.2067 |
| 180.000 | | -.2099 | -.2024 |
| 195.000 | | -.2074 | -.2293 |
| 210.000 | | -.2099 | -.2413 |
| 225.000 | | -.2142 | -.2441 |
| 240.000 | | .0000 | -.2636 |
| 270.000 | | -.2280 | -.2388 |
| 300.000 | | -.2222 | -.2240 |
| 330.000 | | -.2216 | -.2265 |

ALPHA (3) = 3.819 BETA (1) =   .009 | RADIUS | .000 | .333 | .667 |
|---|---|---|---|
| PHI | | | |
| .000 | -.2053 | -.1874 | -.2044 |
| 30.000 | | -.2026 | -.1968 |
| 60.000 | | -.2112 | -.2080 |
| 90.000 | | -.2154 | -.2173 |
| 120.000 | | -.2066 | -.2060 |
| 135.000 | | -.2086 | -.2011 |
| 150.000 | | -.2050 | -.1956 |
| 165.000 | | -.2002 | -.1921 |
| 180.000 | | -.1978 | -.1857 |
| 195.000 | | -.1981 | -.2162 |

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI30)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.819 BETA (1) =   .009   RADIUS   .000   .333   .667
                                                PHI
                                                210.000   -.1990 -.2147
                                                225.000   -.2007 -.2251
                                                240.000   .0000 -.2161
                                                270.000   -.2003 -.2044
                                                300.000   -.1941 -.1998
                                                330.000   -.1897 -.1891

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REU131)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.020 BETA (1) = .006   RADIUS   .000   .333   .667
                                            PHI
                                             .000 -.3394 -.3500 -.3614
                                           30.000   -.3486 -.3865
                                           60.000   -.3500 -.3722
                                           90.000   -.3468 -.3529
                                          120.000   -.3339 -.3566
                                          135.000   -.3331 -.3277
                                          150.000   -.3299 -.3110
                                          165.000   -.3276 -.3048
                                          180.000   -.3330 -.3210
                                          195.000   -.3354 -.3623
                                          210.000   -.3413 -.3821
                                          225.000   -.3421 -.3641
                                          240.000   .0000 -.3516
                                          270.000   -.3453 -.3488
                                          300.000   -.3489 -.3540
                                          330.000   -.3479 -.3728

ALPHA (2) = -.288 BETA (1) = -4.003   RADIUS   .000   .333   .667
                                            PHI
                                             .000 -.3567 -.3716 -.3712
                                           30.000   -.3728 -.3857
                                           60.000   -.3687 -.3708
                                           90.000   -.3641 -.3653
                                          120.000   -.3617 -.3489
                                          135.000   -.3643 -.3329
                                          150.000   -.3590 -.3309
                                          165.000   -.3550 -.3325
                                          180.000   -.3506 -.3500
                                          195.000   -.3561 -.3845
                                          210.000   -.3585 -.3944
                                          225.000   -.3611 -.3724
                                          240.000   .0000 -.3625
                                          270.000   -.3648 -.3635
                                          300.000   -.3690 -.3758
                                          330.000   -.3674 -.3774

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REVI31)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.279 BETA (2) =   .009

RADIUS	.000	.333	.667
PHI			
.000	-.3279	-.3266	-.2980
30.000		-.3292	-.3333
60.000		-.3162	-.3145
90.000		-.3099	-.3512
120.000		-.3059	-.3416
135.000		-.3046	-.3185
150.000		-.2943	-.2998
165.000		-.2999	-.2945
180.000		-.3149	-.2797
195.000		-.3251	-.3204
210.000		-.3304	-.3449
225.000		-.3332	-.3308
240.000		.0000	-.3129
270.000		-.3240	-.3066
300.000		-.3273	-.3062
330.000		-.3302	-.3196

ALPHA (2) = -.264 BETA (3) = 4.031

RADIUS	.000	.333	.667
PHI			
.000	-.3513	-.3615	-.3525
30.000		-.3544	-.3675
60.000		-.3609	-.3482
90.000		-.3490	-.3452
120.000		-.3415	-.3499
135.000		-.3441	-.3598
150.000		-.3247	-.3213
165.000		-.3295	-.3763
180.000		-.3499	-.3735
195.000		-.3527	-.3725
210.000		-.3349	-.3946
225.000		-.3566	-.3812
240.000		.0000	-.3567
270.000		-.3641	-.3553
300.000		-.3525	-.3476
330.000		-.3538	-.3599

ALPHA (3) = 3.978 BETA (1) =   .000

RADIUS	.000	.333	.667
PHI			
.000	-.3206	-.3401	-.3105
30.000		-.3468	-.3490
60.000		-.3330	-.3378
90.000		-.3315	-.3417
120.000		-.3234	-.3391
135.000		-.3210	-.3131
150.000		-.3141	-.2934
165.000		-.3105	-.2865
180.000		-.3182	-.2998
195.000		-.3212	-.3382

ARC11-914IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI31)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.978 BETA (1) =   .000   RADIUS   .000   .333   .667
                                              PHI
                                              210.000   -.3257 -.3664
                                              225.000   -.3275 -.3494
                                              240.000   .0000 -.3291
                                              270.000   -.3322 -.3244
                                              300.000   -.3389 -.3161
                                              330.000   -.3403 -.3315

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REVI32) . (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.900 BETA (1) =   .000   RADIUS   .000   .333   .667
                                                PHI
                                                 .000   -.4051   -.4083   -.4097
                                                30.000   -.4113   -.4259
                                                60.000   -.4018   -.4380
                                                90.000   -.4092   -.4438
                                               120.000   -.4051   -.4227
                                               135.000   -.4048   -.4112
                                               150.000   -.4017   -.4077
                                               165.000   -.3958   -.4033
                                               180.000   -.4037   -.3919
                                               195.000   -.4073   -.4174
                                               210.000   -.4094   -.4291
                                               225.000   -.4128   -.4168
                                               240.000   .0000   -.4216
                                               270.000   -.4075   -.4394
                                               300.000   -.3988   -.4277
                                               330.000   -.4004   -.4114

ALPHA (2) = -.255 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                                PHI
                                                 .000   -.3948   -.4086   -.4209
                                                30.000   -.4059   -.4234
                                                60.000   -.4083   -.4173
                                                90.000   -.4130   -.4193
                                               120.000   -.4083   -.4206
                                               135.000   -.4145   -.4292
                                               150.000   -.4110   -.4507
                                               165.000   -.3986   -.4432
                                               180.000   -.3932   -.3835
                                               195.000   -.3864   -.4004
                                               210.000   -.3924   -.3980
                                               225.000   -.3819   -.3982
                                               240.000   .0000   -.3985
                                               270.000   -.3944   -.4177
                                               300.000   -.4064   -.4222
                                               330.000   -.4102   -.4156

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI32)

SECTION (1)ET BASE   DEPENDENT VARIABLE CF

ALPHA (2) = -.213 BETA (2) =   .009

RADIUS	.000	.333	.667
PHI			
.000	-.3522	-.3667	-.3761
30.000		-.3664	-.3863
60.000		-.3632	-.3916
90.000		-.3650	-.4009
120.000		-.3608	-.3778
135.000		-.3642	-.3597
150.000		-.3586	-.3510
165.000		-.3517	-.3544
180.000		-.3592	-.3428
195.000		-.3560	-.3632
210.000		-.3565	-.3756
225.000		-.3603	-.3731
240.000		.0000	-.3738
270.000		-.3611	-.3822
300.000		-.3593	-.3811
330.000		-.3639	-.3812

ALPHA (2) = -.219 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.4031	-.4048	-.4141
30.000		-.4076	-.4170
60.000		-.4086	-.4185
90.000		-.4007	-.4107
120.000		-.3883	-.3937
135.000		-.3878	-.3917
150.000		-.3868	-.3918
165.000		-.3810	-.4046
180.000		-.3890	-.3875
195.000		-.3936	-.4312
210.000		-.4022	-.4516
225.000		-.4056	-.4193
240.000		.0000	-.4126
270.000		-.4039	-.4075
300.000		-.4045	-.4098
330.000		-.4058	-.4158

ALPHA (3) = 3.981 BETA (1) =   .000

RADIUS	.000	.333	.667
PHI			
.000	-.3808	-.3769	-.3852
30.000		-.3836	-.3991
60.000		-.3824	-.3970
90.000		-.3847	-.4035
120.000		-.3764	-.3905
135.000		-.3783	-.3846
150.000		-.3767	-.3763
165.000		-.3665	-.3746
180.000		-.3761	-.3621
195.000		-.3742	-.3873

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI32)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.981 BETA (1) =   .000   RADIUS   .000   .333   .667
                                             PHI
                                             210.000   -.3747 -.3864
                                             225.000   -.3765 -.3832
                                             240.000   .0000 -.3909
                                             270.000   -.3732 -.3878
                                             300.000   -.3651 -.3744
                                             330.000   -.3685 -.3857

ARC11-014IA19 OTS+STRUT SRB-OFF HFS-OFF ET BASE   (REVI33)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.044 BETA (1) =   .003   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.3325 -.3412 -.3542
                                               30.000   -.3447 -.3662
                                               60.000   -.3482 -.3676
                                               90.000   -.3506 -.3705
                                              120.000   -.3434 -.3456
                                              135.000   -.3447 -.3360
                                              150.000   -.3399 -.3306
                                              165.000   -.3331 -.3270
                                              180.000   -.3331 -.3196
                                              195.000   -.3314 -.3447
                                              210.000   -.3317 -.3612
                                              225.000   -.3317 -.3552
                                              240.000   .0000 -.3506
                                              270.000   -.3333 -.3573
                                              300.000   -.3290 -.3476
                                              330.000   -.3339 -.3434

ALPHA (2) = -.198 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.3442 -.3469 -.3676
                                               30.000   -.3530 -.3881
                                               60.000   -.3606 -.3655
                                               90.000   -.3619 -.3729
                                              120.000   -.3501 -.3614
                                              135.000   -.3527 -.3568
                                              150.000   -.3484 -.3756
                                              165.000   -.3382 -.3697
                                              180.000   -.3353 -.3328
                                              195.000   -.3297 -.3463
                                              210.000   -.3309 -.3412
                                              225.000   -.3301 -.3380
                                              240.000   .0000 -.3409
                                              270.000   -.3352 -.3507
                                              300.000   -.3369 -.3477
                                              330.000   -.3388 -.3679

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI33)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.162 BETA (2) =   .009

RADIUS	.000	.333	.667
PHI			
.000	-.3134	-.3151	-.3271
30.000		-.3191	-.3415
60.000		-.3177	-.3322
90.000		-.3251	-.3431
120.000		-.3211	-.3236
135.000		-.3235	-.3181
150.000		-.3227	-.3131
165.000		-.3144	-.3112
180.000		-.3158	-.3021
195.000		-.3128	-.3206
210.000		-.3137	-.3381
225.000		-.3152	-.3333
240.000		.0000	-.3295
270.000		-.3121	-.3348
300.000		-.3061	-.3165
330.000		-.3099	-.3279

ALPHA (2) = -.210 BETA (3) = 4.031

RADIUS	.000	.333	.667
PHI			
.000	-.3395	-.3419	-.3653
30.000		-.3403	-.3650
60.000		-.3428	-.3548
90.000		-.3355	-.3503
120.000		-.3254	-.3462
135.000		-.3326	-.3390
150.000		-.3332	-.3387
165.000		-.3315	-.3384
180.000		-.3350	-.3292
195.000		-.3374	-.3593
210.000		-.3412	-.3763
225.000		-.3473	-.3649
240.000		.0000	-.3709
270.000		-.3565	-.3623
300.000		-.3543	-.3601
330.000		-.3465	-.3863

ALPHA (3) = 3.848 BETA (1) =   .003

RADIUS	.000	.333	.667
PHI			
.000	-.3208	-.3092	-.3234
30.000		-.3252	-.3470
60.000		-.3274	-.3247
90.000		-.3303	-.3424
120.000		-.3295	-.3452
135.000		-.3322	-.3322
150.000		-.3306	-.3287
165.000		-.3217	-.3260
180.000		-.3246	-.3163
195.000		-.3195	-.3395

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI33)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.846 BETA (1) =   .003   RADIUS   .000   .333   .667
                                                  PHI
                                                  210.000   -.3179 -.3360
                                                  225.000   -.3179 -.3498
                                                  240.000   .0000 -.3346
                                                  270.000   -.3146 -.3309
                                                  300.000   -.3090 -.3131
                                                  330.000   -.3116 -.3479

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUT34)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.3007 -.3029 -.2976
                                               30.000   -.3073 -.3294
                                               60.000   -.3057 -.3160
                                               90.000   -.3037 -.3165
                                              120.000   -.3018 -.3285
                                              135.000   -.3056 -.3252
                                              150.000   -.3061 -.3453
                                              165.000   -.2997 -.3257
                                              180.000   -.3026 -.3032
                                              195.000   -.3037 -.3214
                                              210.000   -.3006 -.3208
                                              225.000   -.3024 -.3200
                                              240.000   .0000 -.3159
                                              270.000   -.2982 -.3129
                                              300.000   -.2881 -.3053
                                              330.000   -.2950 -.3056

ALPHA (2) = -.231 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.2900 -.2907 -.2899
                                               30.000   -.2953 -.3077
                                               60.000   -.3011 -.2997
                                               90.000   -.3060 -.3199
                                              120.000   -.3025 -.3363
                                              135.000   -.3110 -.3213
                                              150.000   -.3053 -.3238
                                              165.000   -.2918 -.3344
                                              180.000   -.2935 -.2883
                                              195.000   -.2885 -.2768
                                              210.000   -.2839 -.2748
                                              225.000   -.2815 -.2819
                                              240.000   .0000 -.2913
                                              270.000   -.2754 -.2958
                                              300.000   -.2851 -.2955
                                              330.000   -.2868 -.2966

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUT34)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.231 BETA (2) =   .009   RADIUS   .000   .333   .667
                                                PHI
                                                  .000   -.2685   -.2702   -.2715
                                                30.000   -.2711   -.2871
                                                60.000   -.2653   -.2862
                                                90.000   -.2762   -.2953
                                               120.000   -.2749   -.2825
                                               135.000   -.2779   -.2724
                                               150.000   -.2760   -.2661
                                               165.000   -.2679   -.2650
                                               180.000   -.2733   -.2579
                                               195.000   -.2708   -.2809
                                               210.000   -.2703   -.2785
                                               225.000   -.2683   -.3041
                                               240.000   .0000   -.2913
                                               270.000   -.2655   -.2846
                                               300.000   -.2530   -.2715
                                               330.000   -.2571   -.2681

ALPHA (2) = -.210 BETA (3) = 4.028   RADIUS   .000   .333   .667
                                                PHI
                                                  .000   -.2921   -.2896   -.2944
                                                30.000   -.2892   -.2899
                                                60.000   -.2933   -.3036
                                                90.000   -.2877   -.2953
                                               120.000   -.2790   -.2940
                                               135.000   -.2851   -.2898
                                               150.000   -.2821   -.2883
                                               165.000   -.2823   -.2937
                                               180.000   -.2880   -.2798
                                               195.000   -.2904   -.3052
                                               210.000   -.2944   -.3100
                                               225.000   -.2985   -.3311
                                               240.000   .0000   -.3523
                                               270.000   -.3050   -.3135
                                               300.000   -.2988   -.2961
                                               330.000   -.2916   -.3036

ALPHA (3) = 3.930 BETA (1) =   .003   RADIUS   .000   .333   .667
                                                PHI
                                                  .000   -.2660   -.2455   -.2792
                                                30.000   -.2578   -.2592
                                                60.000   -.2731   -.2691
                                                90.000   -.2753   -.2765
                                               120.000   -.2699   -.2735
                                               135.000   -.2772   -.2695
                                               150.000   -.2774   -.2674
                                               165.000   -.2695   -.2645
                                               180.000   -.2692   -.2553
                                               195.000   -.2691   -.2848

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF ET BASE   (REUI34)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.930 BETA (1) =   .003   RADIUS   .000   .333   .667
                                            PHI
                                            210.000   -.2654 -.2784
                                            225.000   -.2685 -.3150
                                            240.000   .0000 -.2923
                                            270.000   -.2654 -.2692
                                            300.000   -.2565 -.2532
                                            330.000   -.2534 -.2642

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REV135)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.308 BETA (1) =   .009   RADIUS   .000   .333   .667
                                                PHI
                                                   .000 -.4216   -.4259   -.4439
                                                 30.000   -.4310   -.4546
                                                 60.000   -.4312   -.4407
                                                 90.000   -.4252   -.4419
                                                120.000   -.4202   -.4472
                                                135.000   -.4224   -.4199
                                                150.000   -.4208   -.3933
                                                165.000   -.4140   -.3941
                                                180.000   -.4155   -.4011
                                                195.000   -.4195   -.4471
                                                210.000   -.4241   -.4558
                                                225.000   -.4288   -.4323
                                                240.000   .0000   -.4254
                                                270.000   -.4227   -.4194
                                                300.000   -.4217   -.4351
                                                330.000   -.4251   -.4491

ALPHA (2) = -.390 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                                PHI
                                                   .000 -.4394   -.4322   -.4363
                                                 30.000   -.4370   -.4599
                                                 60.000   -.4413   -.4425
                                                 90.000   -.4357   -.4424
                                                120.000   -.4218   -.4225
                                                135.000   -.4240   -.4055
                                                150.000   -.4246   -.4015
                                                165.000   -.4238   -.3991
                                                180.000   -.4253   -.4140
                                                195.000   -.4276   -.4555
                                                210.000   -.4336   -.4603
                                                225.000   -.4342   -.4368
                                                240.000   .0000   -.4344
                                                270.000   -.4370   -.4236
                                                300.000   -.4344   -.4299
                                                330.000   -.4330   -.4471

ARC11-014IA19 OTS+STRUT SRB-NOM MFS-NOM ET BASE   (REVI35)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.384 BETA (2) = .012

RADIUS	.000	.333	.667
PHI			
.000	-.4218	-.4192	-.3878
30.000		-.4167	-.4141
60.000		-.3988	-.4013
90.000		-.3883	-.4472
120.000		-.3915	-.4375
135.000		-.3911	-.4206
150.000		-.3832	-.4051
165.000		-.3664	-.3972
180.000		-.4073	-.3693
195.000		-.4143	-.4064
210.000		-.4216	-.4252
225.000		-.4246	-.4048
240.000		.0000	-.3915
270.000		-.4232	-.3925
300.000		-.4065	-.3804
330.000		-.4162	-.3974

ALPHA (2) = -.345 BETA (3) = 4.025

RADIUS	.000	.333	.667
PHI			
.000	-.4429	-.4347	-.4228
30.000		-.4479	-.4472
60.000		-.4420	-.4296
90.000		-.4308	-.4117
120.000		-.4284	-.4235
135.000		-.4302	-.4420
150.000		-.4290	-.4525
165.000		-.4304	-.4625
180.000		-.4485	-.4511
195.000		-.4503	-.4687
210.000		-.4499	-.4740
225.000		-.4473	-.4400
240.000		.0000	-.4378
270.000		-.4491	-.4282
300.000		-.4509	-.4152
330.000		-.4437	-.4419

ALPHA (3) = 3.903 BETA (1) = .006

RADIUS	.000	.333	.667
PHI			
.000	-.4037	-.4129	-.3957
30.000		-.4176	-.4214
60.000		-.4194	-.4079
90.000		-.4105	-.4189
120.000		-.3989	-.4039
135.000		-.3965	-.3941
150.000		-.3947	-.3879
165.000		-.3865	-.3811
180.000		-.3958	-.3770
195.000		-.3990	-.4250

ARC11-014IA19 OFS+STRUT SRB-NOM MPS-NOM ET BASE   (REUT35)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.903 BETA (1) =   .006   RADIUS   .000   .333   .667
                                                 PHI
                                                 210.000   -.4017 -.4380
                                                 225.000   -.3988 -.4190
                                                 240.000   .0000 -.4069
                                                 270.000   -.4035 -.4001
                                                 300.000   -.4067 -.3862
                                                 330.000   -.4099 -.4129

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI36)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000 ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000 MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.000 BETA (1) =   .000   RADIUS   .000   .333   .667
                                            PHI
                                              .000 -.4194 -.4282 -.4158
                                             30.000   -.4297 -.4330
                                             60.000   -.4210 -.4453
                                             90.000   -.4210 -.4579
                                            120.000   -.4193 -.4428
                                            135.000   -.4193 -.4313
                                            150.000   -.4150 -.4255
                                            165.000   -.4075 -.4216
                                            180.000   -.4196 -.4026
                                            195.000   -.4250 -.4262
                                            210.000   -.4265 -.4380
                                            225.000   -.4251 -.4300
                                            240.000   .0000 -.4378
                                            270.000   -.4265 -.4488
                                            300.000   -.4170 -.4367
                                            330.000   -.4190 -.4214

ALPHA (2) = -.342 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                            PHI
                                              .000 -.4080 -.4178 -.4298
                                             30.000   -.4158 -.4325
                                             60.000   -.4179 -.4232
                                             90.000   -.4251 -.4318
                                            120.000   -.4197 -.4341
                                            135.000   -.4262 -.4521
                                            150.000   -.4229 -.4699
                                            165.000   -.4135 -.4606
                                            180.000   -.4109 -.4038
                                            195.000   -.4014 -.4213
                                            210.000   -.3994 -.4149
                                            225.000   -.3996 -.4142
                                            240.000   .0000 -.4100
                                            270.000   -.4102 -.4269
                                            300.000   -.4183 -.4329
                                            330.000   -.4198 -.4254

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI36)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.318 BETA (2) =   .012

RADIUS	.000	.333	.667
FHI			
.000	-.3522	-.3710	-.3867
30.000		-.3745	-.3989
60.000		-.3794	-.4023
90.000		-.3831	-.4114
120.000		-.3751	-.3975
135.000		-.3749	-.3645
150.000		-.3710	-.3569
165.000		-.3616	-.3551
180.000		-.3589	-.3474
195.000		-.3558	-.3700
210.000		-.3572	-.3925
225.000		-.3600	-.3909
240.000		.0000	-.3940
270.000		-.3609	-.3938
300.000		-.3632	-.4025
330.000		-.3678	-.3897

ALPHA (2) = -.41? BETA (3) = 4.031

RADIUS	.000	.333	.667
FHI			
.000	-.3990	-.4058	-.4195
30.000		-.4098	-.4201
60.000		-.4091	-.4227
90.000		-.4011	-.4126
120.000		-.3991	-.3952
135.000		-.3901	-.3910
150.000		-.3871	-.4028
165.000		-.3811	-.4057
180.000		-.3902	-.3905
195.000		-.3968	-.4289
210.000		-.4010	-.4495
225.000		-.4076	-.4197
240.000		.0000	-.4173
270.000		-.4076	-.4102
300.000		-.4097	-.4121
330.000		-.4073	-.4173

ALPHA (3) = 3.717 BETA (1) =   .000

RADIUS	.000	.333	.667
FHI			
.000	-.4032	-.4079	-.4265
30.000		-.4167	-.4334
60.000		-.4129	-.4322
90.000		-.4142	-.4340
120.000		-.4065	-.4195
135.000		-.4087	-.4089
150.000		-.4045	-.4009
165.000		-.3965	-.3994
180.000		-.4005	-.3872
195.000		-.4022	-.4155

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI36)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.71° BETA (1) = .000   RADIUS   .000   .333   .667
                                         PHI
                                         210.000   -.4046 -.4222
                                         225.000   -.4034 -.4156
                                         240.000   .0000 -.4173
                                         270.000   -.4049 -.4288
                                         300.000   -.3973 -.4162
                                         330.000   -.4029 -.4214

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REVI37)   (04 FEB 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

ELV-IB =   .000   ELV-OB =   .000
RUDDER =   .000   MACH   =   1.250
GIMBAL =   2.000

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.149 BETA (1) =   .006

RADIUS	.000	.333	.667
PHI			
.000	-.3138	-.3207	-.3288
30.000		-.3286	-.3420
60.000		-.3264	-.3448
90.000		-.3288	-.3422
120.000		-.3208	-.3231
135.000		-.3223	-.3120
150.000		-.3207	-.3075
165.000		-.3134	-.3036
180.000		-.3119	-.3024
195.000		-.3114	-.3227
210.000		-.3114	-.3428
225.000		-.3127	-.3342
240.000		.0000	-.3315
270.000		-.3114	-.3355
300.000		-.3086	-.3266
330.000		-.3146	-.3235

ALPHA (2) = -.414 BETA (1) = -4.003

RADIUS	.000	.333	.667
PHI			
.000	-.3098	-.3146	-.3256
30.000		-.3152	-.3458
60.000		-.3177	-.3239
90.000		-.3226	-.3282
120.000		-.3145	-.3228
135.000		-.3164	-.3284
150.000		-.3159	-.3465
165.000		-.3043	-.3405
180.000		-.3000	-.3062
195.000		-.2973	-.3175
210.000		-.2936	-.3101
225.000		-.2942	-.3047
240.000		.0000	-.3051
270.000		-.2963	-.3137
300.000		-.3003	-.3091
330.000		-.3039	-.3230

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE　　　　　(REUI37)

SECTION (1)ET BASE　　　　　　　DEPENDENT VARIABLE CP

ALPHA (2) = -.459 BETA (2) = .009

RADIUS	.000	.333	.667
PHI			
.000	-.2887	-.2899	-.2968
30.000		-.2941	-.3122
60.000		-.2924	-.3054
90.000		-.2954	-.3169
120.000		-.2929	-.2959
135.000		-.2954	-.2904
150.000		-.2946	-.2878
165.000		-.2853	-.2920
180.000		-.2892	-.2759
195.000		-.2861	-.2935
210.000		-.2863	-.3079
225.000		-.2871	-.3029
240.000		.0000	-.3013
270.000		-.2855	-.3092
300.000		-.2791	-.2881
330.000		-.2852	-.3027

ALPHA (2) = -.468 BETA (3) = 4.028

RADIUS	.001	.333	.667
PHI			
.000	-.3021	-.3021	-.3211
30.000		-.3013	-.3182
60.000		-.3026	-.3142
90.000		-.2966	-.3064
120.000		-.2901	-.3032
135.000		-.2941	-.2980
150.000		-.2929	-.3001
165.000		-.2901	-.2975
180.000		-.2962	-.2885
195.000		-.2999	-.3213
210.000		-.3037	-.3345
225.000		-.3058	-.3189
240.000		.0000	-.3187
270.000		-.3106	-.3166
300.000		-.3080	-.3109
330.000		-.3034	-.3370

ALPHA (3) = 3.864 BETA (1) = .003

RADIUS	.000	.333	.667
PHI			
.000	-.3006	-.2886	-.2993
30.000		-.3030	-.3216
60.000		-.3076	-.3073
90.000		-.3121	-.3174
120.000		-.3065	-.3191
135.000		-.3073	-.3113
150.000		-.3067	-.3011
165.000		-.3004	-.3016
180.000		-.2990	-.2949
195.000		-.2964	-.3151

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REUI37)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.864 BETA (1) =   .003   RADIUS   .000   .333   .667
                                               PHI
                                               210.000   -.2945 -.3141
                                               225.000   -.2963 -.3232
                                               240.000   .0000 -.3110
                                               270.000   -.2915 -.3086
                                               300.000   -.2842 -.2925
                                               330.000   -.2880 -.3202

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REU138) (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP =	976.0000 IN. XT	ELV-IB =	.000	ELV-OB =	.000
LREF = 1290.3000 IN.	YMRP =	.0000 IN. YT	RUDDER =	.000	MACH =	1.400
BREF = 1290.3000 IN.	ZMRP =	400.0000 IN. ZT	GIMBAL =	2.000		
SCALE = .0200						

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.153 BETA (1) = .003

RADIUS	.000	.333	.667
PHI			
.000	-.2430	-.2405	-.2352
30.000		-.2434	-.2528
60.000		-.2382	-.2455
90.000		-.2436	-.2577
120.000		-.2404	-.2541
135.000		-.2432	-.2530
150.000		-.2412	-.2474
165.000		-.2357	-.2438
180.000		-.2431	-.2327
195.000		-.2433	-.2516
210.000		-.2428	-.2597
225.000		-.2414	-.2499
240.000		.0000	-.2441
270.000		-.2409	-.2435
300.000		-.2356	-.2382
330.000		-.2378	-.2399

ALPHA (2) = -.387 BETA (1) = -4.000

RADIUS	.000	.333	.667
PHI			
.000	-.2310	-.2374	-.2342
30.000		-.2416	-.2482
60.000		-.2454	-.2495
90.000		-.2484	-.2668
120.000		-.2450	-.2597
135.000		-.2409	-.2679
150.000		-.2401	-.2743
165.000		-.2278	-.2718
180.000		-.2257	-.2390
195.000		-.2261	-.2328
210.000		-.2228	-.2277
225.000		-.2218	-.2303
240.000		.0000	-.2352
270.000		-.2175	-.2319
300.000		-.2217	-.2387
330.000		-.2273	-.2404

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REV138)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.318 BETA (2) = .009

RADIUS	.000	.333	.667
PHI			
.000	-.2234	-.2235	-.2164
30.000		-.2275	-.2486
60.000		-.2237	-.2410
90.000		-.2282	-.2443
120.000		-.2251	-.2311
135.000		-.2276	-.2236
150.000		-.2245	-.2177
165.000		-.2176	-.2168
180.000		-.2219	-.2086
195.000		-.2212	-.2310
210.000		-.2197	-.2374
225.000		-.2221	-.2369
240.000		.0000	-.2346
270.000		-.2197	-.2358
300.000		-.2119	-.2260
330.000		-.2165	-.2247

ALPHA (2) = -.354 BETA (3) = 4.031

RADIUS	.000	.333	.667
PHI			
.000	-.2344	-.2368	-.2337
30.000		-.2274	-.2252
60.000		-.2241	-.2316
90.000		-.2196	-.2285
120.000		-.2190	-.2358
135.000		-.2273	-.2298
150.000		-.2278	-.2333
165.000		-.2213	-.2294
180.000		-.2309	-.2172
195.000		-.2279	-.2445
210.000		-.2319	-.2595
225.000		-.2344	-.2654
240.000		.0000	-.2796
270.000		-.2476	-.2561
300.000		-.2425	-.2406
330.000		-.2389	-.2445

ALPHA (3) = 3.939 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.2150	-.1983	-.2214
30.000		-.2096	-.2103
60.000		-.2192	-.2212
90.000		-.2254	-.2286
120.000		-.2173	-.2184
135.000		-.2198	-.2146
150.000		-.2176	-.2106
165.000		-.2097	-.2073
180.000		-.2127	-.1989
195.000		-.2124	-.2282

ARC11-014TA19 OTS+STRUT SRB-NOM MPS-NOM ET BASE   (REU138)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.939 BETA (1) =   .000   RADIUS   .000   .333   .667
                                            PHI
                                            210.000   -.2119 -.2232
                                            225.000   -.2121 -.2473
                                            240.000   .0000 -.2312
                                            270.000   -.2115 -.2198
                                            300.000   -.2057 -.2038
                                            330.000   -.2026 -.2026

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUT39)   (04 FEB 75)

REFERENCE DATA

PARAMETRIC DATA

ELV-IB = .000	ELV-OB = .000
RUDDER = .000	MACH = .900
GIMBAL = 1.000	

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP = .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT
SCALE = .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.139   BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3693	-.3744	-.3599
30.000		-.3780	-.3786
60.000		-.3673	-.3699
90.000		-.3667	-.3852
120.000		-.3599	-.3963
135.000		-.3486	-.3620
150.000		-.3468	-.3483
165.000		-.3483	-.3441
180.000		-.3606	-.3426
195.000		-.3701	-.3727
210.000		-.3721	-.3867
225.000		-.3699	-.3707
240.000		.0000	-.3643
270.000		-.3762	-.3552
300.000		-.3701	-.3619
330.000		-.3723	-.3763

ALPHA (2) = -4.038   BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3350	-.3358	-.3233
30.000		-.3418	-.3469
60.000		-.3317	-.3395
90.000		-.3287	-.3535
120.000		-.3217	-.3596
135.000		-.3181	-.3283
150.000		-.3145	-.3061
165.000		-.3097	-.3032
180.000		-.3292	-.2977
195.000		-.3334	-.3343
210.000		-.3382	-.3551
225.000		-.3414	-.3409
240.000		.0000	-.3291
270.000		-.3368	-.3229
300.000		-.3342	-.3219
330.000		-.3376	-.3373

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI39)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.228 BETA (1) = -4.003

RADIUS	.000	.333	.667
PHI			
.000	-.3468	-.3541	-.3549
30.000		-.3623	-.3831
60.000		-.3517	-.3643
90.000		-.3523	-.3669
120.000		-.3510	-.3566
135.000		-.3464	-.3322
150.000		-.3384	-.3232
165.000		-.3390	-.3118
180.000		-.3382	-.3116
195.000		-.3374	-.3322
210.000		-.3442	-.3643
225.000		-.3449	-.3741
240.000		.0000	-.3777
270.000		-.3533	-.3537
300.000		-.3478	-.3529
330.000		-.3515	-.3645

ALPHA (3) = -.249 BETA (2) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.3147	-.3249	-.3055
30.000		-.3295	-.3366
60.000		-.3278	-.3225
90.000		-.3148	-.3435
120.000		-.3118	-.3381
135.000		-.3140	-.3105
150.000		-.3086	-.2915
165.000		-.3042	-.2833
180.000		-.3053	-.2805
195.000		-.3093	-.3220
210.000		-.3177	-.3473
225.000		-.3213	-.3359
240.000		.0000	-.3230
270.000		-.3213	-.3142
300.000		-.3143	-.3129
330.000		-.3153	-.3255

ALPHA (3) = -.261 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.3401	-.3479	-.3629
30.000		-.3423	-.3659
60.000		-.3470	-.3496
90.000		-.3506	-.3488
120.000		-.3526	-.3674
135.000		-.3554	-.3694
150.000		-.3556	-.3576
165.000		-.3396	-.3606
180.000		-.3270	-.3512
195.000		-.3246	-.3094

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI39)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.261 BETA (3) = 4.028

PHI	RADIUS .000	.333	.667
210.000		-.3238	-.3185
225.000		-.3298	-.3349
240.000		.0000	-.3506
270.000		-.3463	-.3568
300.000		-.3501	-.3611
330.000		-.3514	-.3767

ALPHA (4) = 4.032 BETA (1) = .003

PHI	RADIUS .000	.333	.667
.000	-.3265	-.3418	-.2915
30.000		-.3491	-.3221
60.000		-.3362	-.3161
90.000		-.3278	-.3389
120.000		-.3218	-.3397
135.000		-.3218	-.3182
150.000		-.3142	-.3025
165.000		-.3080	-.2900
180.000		-.3187	-.2812
195.000		-.3225	-.3290
210.000		-.3260	-.3610
225.000		-.3338	-.3420
240.000		.0000	-.3179
270.000		-.3312	-.3197
300.000		-.3348	-.3039
330.000		-.3420	-.3165

ALPHA (5) = 7.920 BETA (1) = .003

PHI	RADIUS .000	.333	.667
.000	-.3380	-.3568	-.3238
30.000		-.3638	-.3628
60.000		-.3497	-.3435
90.000		-.3455	-.3359
120.000		-.3358	-.3377
135.000		-.3320	-.3251
150.000		-.3300	-.3105
165.000		-.3199	-.3013
180.000		-.3288	-.3169
195.000		-.3273	-.3513
210.000		-.3324	-.3806
225.000		-.3356	-.3666
240.000		.0000	-.3495
270.000		-.3430	-.3376
300.000		-.3447	-.3324
330.000		-.3554	-.3511

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI40)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

					ELV-IB =	.000	ELV-OB =	.000
SREF	=	2690.0000 SQ.FT.	XMRP =	976.0000 IN. XT	RUDDER =	.000	MACH =	1.100
LREF	=	1290.3000 IN.	YMRP =	.0000 IN. YT	GIMBAL =	1.000		
BREF	=	1290.3000 IN.	ZMRP =	400.0000 IN. ZT				
SCALE	=	.0200						

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -7.992 BETA (1) =   .003

RADIUS	.000	.333	.667
PHI			
.000	-.4300	-.4321	-.4233
30.000		-.4366	-.4739
60.000		-.4362	-.4500
90.000		-.4384	-.4612
120.000		-.4265	-.4620
135.000		-.4292	-.4335
150.000		-.4269	-.4250
165.000		-.4221	-.4188
180.000		-.4253	-.4147
195.000		-.4255	-.4460
210.000		-.4290	-.4340
225.000		-.4339	-.4686
240.000		.0000	-.4612
270.000		-.4312	-.4441
300.000		-.4251	-.4285
330.000		-.4199	-.4321

ALPHA (2) = -4.060 BETA (1) =   .003

RADIUS	.000	.333	.667
PHI			
.000	-.3888	-.4016	-.3995
30.000		-.4029	-.4091
60.000		-.3959	-.4246
90.000		-.3966	-.4275
120.000		-.3946	-.4054
135.000		-.3941	-.3993
150.000		-.3953	-.3921
165.000		-.3859	-.3886
180.000		-.3943	-.3818
195.000		-.3930	-.4115
210.000		-.3982	-.4265
225.000		-.4019	-.4115
240.000		.0000	-.4133
270.000		-.4010	-.4304
300.000		-.3855	-.4164
330.000		-.3892	-.4039

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REVI40)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.225 BETA (1) = -4.000

RADIUS PHI	.000	.333	.667
.000	-.4171	-.4258	-.4451
30.000		-.4260	-.4451
60.000		-.4351	-.4502
90.000		-.4401	-.4506
120.000		-.4243	-.4347
135.000		-.4243	-.4174
150.000		-.4232	-.4124
165.000		-.4132	-.4064
180.000		-.4179	-.4058
195.000		-.4186	-.4097
210.000		-.4215	-.4272
225.000		-.4223	-.4286
240.000		.0000	-.4293
270.000		-.4205	-.4244
300.000		-.4103	-.4447
330.000		-.4215	-.4364

ALPHA (3) = -.159 BETA (2) = .012

RADIUS PHI	.000	.333	.667
.000	-.3603	-.3831	-.3949
30.000		-.3839	-.4086
60.000		-.3853	-.4110
90.000		-.3890	-.4145
120.000		-.3950	-.3971
135.000		-.3865	-.3736
150.000		-.3811	-.3672
165.000		-.3732	-.3630
180.000		-.3695	-.3597
195.000		-.3691	-.3837
210.000		-.3691	-.3921
225.000		-.3716	-.3915
240.000		.0000	-.4057
270.000		-.3656	-.4097
300.000		-.3763	-.4138
330.000		-.3784	-.3991

ALPHA (3) = -.318 BETA (3) = 4.028

RADIUS PHI	.000	.333	.667
.000	-.4004	-.4095	-.4288
30.000		-.4084	-.4224
60.000		-.3998	-.4165
90.000		-.4049	-.3969
120.000		-.4000	-.4078
135.000		-.4036	-.4156
150.000		-.4017	-.4199
165.000		-.3968	-.4197
180.000		-.3961	-.3980
195.000		-.3951	-.3961

ARC11-014IA19 ITS   SRB-OFF MPS-OFF ET BASE   (REUI40)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.312 BETA (3) = 4.028   RADIUS   .000   .333   .667
                                              PHI
                                              210.000   -.3966 -.3932
                                              225.000   -.4003 -.3981
                                              240.000   .0000 -.4156
                                              270.000   -.4096 -.4286
                                              300.000   -.4079 -.4294
                                              330.000   -.4098 -.4272

ALPHA (4) = 3.885 BETA (1) =   .000   RADIUS   .000   .333   .667
                                              PHI
                                                .000 -.4073 -.4109 -.4269
                                               30.000   -.4158 -.4382
                                               60.000   -.4131 -.4353
                                               90.000   -.4168 -.4355
                                              120.000   -.4077 -.4222
                                              135.000   -.4139 -.4115
                                              150.000   -.4107 -.4093
                                              165.000   -.4045 -.4041
                                              180.000   -.4073 -.3982
                                              195.000   -.4063 -.4241
                                              210.000   -.4080 -.4275
                                              225.000   -.4091 -.4231
                                              240.000   .0000 -.4219
                                              270.000   -.4013 -.4281
                                              300.000   -.4015 -.4192
                                              330.000   -.4050 -.4242

ALPHA (5) = 8.073 BETA (1) =   .000   RADIUS   .000   .333   .667
                                              PHI
                                                .000 -.4507 -.4480 -.4479
                                               30.000   -.4551 -.4731
                                               60.000   -.4537 -.4580
                                               90.000   -.4493 -.4605
                                              120.000   -.4374 -.4584
                                              135.000   -.4450 -.4605
                                              150.000   -.4467 -.4735
                                              165.000   -.4375 -.4790
                                              180.000   -.4473 -.4568
                                              195.000   -.4445 -.4700
                                              210.000   -.4456 -.4609
                                              225.000   -.4460 -.4524
                                              240.000   .0000 -.4460
                                              270.000   -.4406 -.4462
                                              300.000   -.4423 -.4371
                                              330.000   -.4449 -.4656

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI41)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.232 BETA (1) = -.006   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.3852 -.3652 -.3403
                                              30.000   -.3840 -.4155
                                              60.000   -.3841 -.4163
                                              90.000   -.3910 -.4195
                                             120.000   -.3852 -.3996
                                             135.000   -.3887 -.3805
                                             150.000   -.3867 -.3777
                                             165.000   -.3835 -.3762
                                             180.000   -.3860 -.3750
                                             195.000   -.3857 -.4047
                                             210.000   -.3898 -.4082
                                             225.000   -.3908 -.3953
                                             240.000   .0000 -.4050
                                             270.000   -.3810 -.4023
                                             300.000   -.3613 -.3798
                                             330.000   -.3556 -.3637

ALPHA (2) = -4.098 BETA (1) = -.006   RADIUS   .000   .333   .667
                                              PHI
                                                .000   -.3331 -.3385 -.3500
                                              30.000   -.3433 -.3631
                                              60.000   -.3417 -.3605
                                              90.000   -.3447 -.3698
                                             120.000   -.3374 -.3457
                                             135.000   -.3371 -.3349
                                             150.000   -.3353 -.3299
                                             165.000   -.3276 -.3237
                                             180.000   -.3350 -.3164
                                             195.000   -.3322 -.3349
                                             210.000   -.3304 -.3457
                                             225.000   -.3325 -.3495
                                             240.000   .0000 -.3495
                                             270.000   -.3293 -.3551
                                             300.000   -.3237 -.3441
                                             330.000   -.3309 -.3440

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI41)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.243 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                            PHI
                                              .000 -.3369 -.3339 -.3531
                                            30.000   -.3505 -.3746
                                            60.000   -.3559 -.3753
                                            90.000   -.3613 -.3842
                                           120.000   -.3496 -.3580
                                           135.000   -.3504 -.3374
                                           150.000   -.3496 -.3326
                                           165.000   -.3423 -.3327
                                           180.000   -.3434 -.3314
                                           195.000   -.3480 -.3440
                                           210.000   -.3525 -.3591
                                           225.000   -.3572 -.3613
                                           240.000   .0000 -.3613
                                           270.000   -.3385 -.3525
                                           300.000   -.3246 -.3317
                                           330.000   -.3286 -.3625

ALPHA (3) = -.171 BETA (2) =   .012   RADIUS   .000   .333   .667
                                            PHI
                                              .000 -.3193 -.3177 -.3220
                                            30.000   -.3217 -.3378
                                            60.000   -.3170 -.3266
                                            90.000   -.3231 -.3423
                                           120.000   -.3188 -.3337
                                           135.000   -.3233 -.3253
                                           150.000   -.3242 -.3182
                                           165.000   -.3154 -.3171
                                           180.000   -.3209 -.3041
                                           195.000   -.3194 -.3217
                                           210.000   -.3204 -.3331
                                           225.000   -.3217 -.3320
                                           240.000   .0000 -.3304
                                           270.000   -.3148 -.3341
                                           300.000   -.3053 -.3135
                                           330.000   -.3145 -.3363

ALPHA (3) = -.171 BETA (3) = 4.025   RADIUS   .000   .333   .667
                                            PHI
                                              .000 -.3445 -.3463 -.3586
                                            30.000   -.3448 -.3536
                                            60.000   -.3364 -.3362
                                            90.000   -.3320 -.3514
                                           120.000   -.3400 -.3632
                                           135.000   -.3516 -.3634
                                           150.000   -.3553 -.3640
                                           165.000   -.3498 -.3639
                                           180.000   -.3485 -.3537
                                           195.000   -.3497 -.3527

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI41)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.171 BETA (3) = 4.025   RADIUS   .000   .333   .667
                                           PHI
                                           210.000   -.3506 -.3572
                                           225.000   -.3549 -.3575
                                           240.000   .0000 -.3703
                                           270.000   -.3613 -.3698
                                           300.000   -.3600 -.3698
                                           330.000   -.3605 -.3861

ALPHA (4) = 7.860 BETA (1) = -.003   RADIUS   .000   .333   .667
                                           PHI
                                            .000   -.3435 -.3387 -.3621
                                            30.000   -.3504 -.3850
                                            60.000   -.3572 -.3638
                                            90.000   -.3589 -.3639
                                           120.000   -.3482 -.3610
                                           135.000   -.3615 -.3580
                                           150.000   -.3590 -.3532
                                           165.000   -.3504 -.3492
                                           180.000   -.3470 -.3397
                                           195.000   -.3432 -.3571
                                           210.000   -.3411 -.3618
                                           225.000   -.3427 -.3908
                                           240.000   .0000 -.3712
                                           270.000   -.3387 -.3573
                                           300.000   -.3347 -.3382
                                           330.000   -.3442 -.3847

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI42)   (04 FEB 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT
SCALE = .0200	

ELV-IB =	.000	ELV-OB =	.000
RUDDER =	.000	MACH =	1.400
GIMBAL =	1.000		

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.059 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3096	-.2979	-.2918
30.000		-.3014	-.3183
60.000		-.2989	-.3103
90.000		-.2973	-.3222
120.000		-.2953	-.3347
135.000		-.3017	-.3137
150.000		-.3023	-.3154
165.000		-.2994	-.3117
180.000		-.3032	-.2950
195.000		-.3012	-.3081
210.000		-.3009	-.3132
225.000		-.3006	-.3269
240.000		.0000	-.3152
270.000		-.2951	-.3100
300.000		-.2883	-.3009
330.000		-.2926	-.2993

ALPHA (2) = -.183 BETA (1) = -3.997

RADIUS	.000	.333	.667
PHI			
.000	-.2932	-.2868	-.2726
30.000		-.2973	-.3108
60.000		-.2990	-.3039
90.000		-.2985	-.3041
120.000		-.2914	-.3052
135.000		-.2971	-.2979
150.000		-.2965	-.2971
165.000		-.2925	-.2952
180.000		-.2972	-.2870
195.000		-.2967	-.2932
210.000		-.2958	-.2942
225.000		-.2908	-.3103
240.000		.0000	-.3018
270.000		-.2797	-.2937
300.000		-.2699	-.2765
330.000		-.2752	-.2783

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI42)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.195 BETA (2) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.2719	-.2649	-.2563
30.000		-.2683	-.2821
60.000		-.2697	-.2906
90.000		-.2774	-.2910
120.000		-.2750	-.2828
135.000		-.2788	-.2721
150.000		-.2779	-.2705
165.000		-.2731	-.2665
180.000		-.2753	-.2607
195.000		-.2739	-.2739
210.000		-.2739	-.2913
225.000		-.2760	-.2897
240.000		.0000	-.2893
270.000		-.2644	-.2821
300.000		-.2535	-.2570
330.000		-.2576	-.2599

ALPHA (2) =   .027 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.2953	-.2893	-.2728
30.000		-.2840	-.2906
60.000		-.2805	-.2934
90.000		-.2748	-.3033
120.000		-.2790	-.3079
135.000		-.2869	-.3135
150.000		-.2878	-.3039
165.000		-.2835	-.3108
180.000		-.2903	-.3124
195.000		-.2933	-.3103
210.000		-.2934	-.3221
225.000		-.2937	-.3182
240.000		.0000	-.3496
270.000		-.2987	-.3181
300.000		-.2956	-.3007
330.000		-.2955	-.3151

ALPHA (3) = 3.924 BETA (1) =   .003

RADIUS	.000	.333	.667
PHI			
.000	-.2609	-.2362	-.2689
30.000		-.2519	-.2577
60.000		-.2644	-.2608
90.000		-.2698	-.2707
120.000		-.2636	-.2678
135.000		-.2700	-.2700
150.000		-.2710	-.2619
165.000		-.2659	-.2578
180.000		-.2654	-.2532
195.000		-.2653	-.2780

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REU142)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.924 BETA (1) =   .003   RADIUS   .000   .333   .667
                                              PHI
                                              210.000   -.2627 -.2976
                                              225.000   -.2630 -.2912
                                              240.000   .0000 -.2799
                                              270.000   -.2567 -.2627
                                              300.000   -.2499 -.2448
                                              330.000.   -.2494 -.2589

ALPHA (4) = 7.809 BETA (1) =   .003   RADIUS   .000   .333   .667
                                              PHI
                                               .000   -.2380 -.2393 -.2737
                                              30.000   -.2453 -.2867
                                              60.000   -.2446 -.2673
                                              90.000   -.2523 -.2758
                                              120.000   -.2519 -.2722
                                              135.000   -.2636 -.2655
                                              150.000   -.2581 -.2591
                                              165.000   -.2504 -.2563
                                              180.000   -.2463 -.2450
                                              195.000   -.2427 -.2574
                                              210.000   -.2393 -.2673
                                              225.000   -.2404 -.2806
                                              240.000   .0000 -.2732
                                              270.000   -.2399 -.2540
                                              300.000   -.2380 -.2419
                                              330.000   -.2445 -.2963

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI43)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 Sq.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.133 BETA (1) =   .003   RADIUS   .000   .333   .667
                                                FHI
                                                  .000   -.4004 -.4024 -.4539
                                                30.000   -.4127 -.4724
                                                60.000   -.4210 -.4662
                                                90.000   -.4153 -.4018
                                               120.000   -.4025 -.4201
                                               135.000   -.4037 -.4001
                                               150.000   -.3990 -.3821
                                               165.000   -.4038 -.4122
                                               180.000   -.3971 -.4316
                                               195.000   -.4197 -.4545
                                               210.000   -.4065 -.4641
                                               225.000   -.4092 -.4543
                                               240.000   .0000   -.4494
                                               270.000   -.4120 -.4387
                                               300.000   -.4069 -.4539
                                               330.000   -.4181 -.4733

ALPHA (2) = -4.002 BETA (1) =   .003   RADIUS   .000   .333   .667
                                                FHI
                                                  .000   -.3472 -.3551 -.3305
                                                30.000   -.3543 -.3510
                                                60.000   -.3351 -.3420
                                                90.000   -.3355 -.3680
                                               120.000   -.3237 -.3760
                                               135.000   -.3225 -.3437
                                               150.000   -.3194 -.3184
                                               165.000   -.3119 -.3128
                                               180.000   -.3426 -.3010
                                               195.000   -.3464 -.3374
                                               210.000   -.3523 -.3625
                                               225.000   -.3545 -.3513
                                               240.000   .0000   -.3395
                                               270.000   -.3523 -.3351
                                               300.000   -.3472 -.3297
                                               330.000   -.3547 -.3401

ARC11-014IA19 OTS   SRB-NOM MFS-OFF ET BASE   (REUI43)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.342 BETA (1) = -4.000

RADIUS	.000	.333	.667
FHI			
.000	-.3624	-.3721	-.3749
30.000		-.3795	-.4085
60.000		-.3786	-.3999
90.000		-.3748	-.3797
120.000		-.3695	-.3714
135.000		-.3668	-.3448
150.000		-.3676	-.3349
165.000		-.3567	-.3295
180.000		-.3547	-.3191
195.000		-.3561	-.3536
210.000		-.3589	-.3769
225.000		-.3640	-.3960
240.000		.0000	-.3980
270.000		-.3664	-.3757
300.000		-.3643	-.3739
330.000		-.3687	-.3902

ALPHA (3) = -.357 BETA (2) = .012

RADIUS	.000	.333	.667
FHI			
.000	-.3440	-.3414	-.3238
30.000		-.3499	-.3590
60.000		-.3435	-.3435
90.000		-.3362	-.3569
120.000		-.3328	-.3575
135.000		-.3310	-.3301
150.000		-.3222	-.3071
165.000		-.3167	-.3014
180.000		-.3372	-.2988
195.000		-.3343	-.3409
210.000		-.3421	-.3707
225.000		-.3449	-.3611
240.000		.0000	-.3413
270.000		-.3439	-.3363
300.000		-.3417	-.3272
330.000		-.3392	-.3420

ALPHA (3) = -.288 BETA (3) = 4.022

RADIUS	.000	.333	.667
FHI			
.000	-.3617	-.3570	-.3610
30.000		-.3570	-.3717
60.000		-.3519	-.3453
90.000		-.3660	-.3614
120.000		-.3731	-.3853
135.000		-.3693	-.3757
150.000		-.3637	-.3694
165.000		-.3480	-.3769
180.000		-.3470	-.3615
195.000		-.3409	-.3259

ARC11-014IA19 JTS　　　SRB-NOM MPS-OFF ET BASE　　　　　　　(REUI43)

SECTION (1)ET BASE　　　　　　　　　DEPENDENT VARIABLE CP

ALPHA (3) = -.288　BETA (3) = 4.022

RADIUS	.000	.333	.667
PHI			
210.000		-.3397	-.3255
225.000		-.3494	-.3490
240.000		.0000	-.3562
270.000		-.3583	-.3723
300.000		-.3556	-.3660
330.000		-.3637	-.3793

ALPHA (4) = 3.924　BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3300	-.3409	-.3332
30.000		-.3537	-.3646
60.000		-.3484	-.3571
90.000		-.3415	-.3475
120.000		-.3275	-.3430
135.000		-.3295	-.3194
150.000		-.3242	-.3025
165.000		-.3182	-.2960
180.000		-.3237	-.2971
195.000		-.3270	-.3458
210.000		-.3262	-.3689
225.000		-.3266	-.3616
240.000		.0000	-.3431
270.000		-.3349	-.3393
300.000		-.3328	-.3364
330.000		-.3342	-.3500

ALPHA (5) = 7.962　BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3321	-.3546	-.3178
30.000		-.3488	-.3535
60.000		-.3400	-.3351
90.000		-.3268	-.3447
120.000		-.3080	-.3375
135.000		-.3149	-.3211
150.000		-.3142	-.3074
165.000		-.3118	-.2927
180.000		-.3160	-.3007
195.000		-.3246	-.3427
210.000		-.3261	-.3695
225.000		-.3339	-.3522
240.000		.0000	-.3315
270.000		-.3261	-.3285
300.000		-.3293	-.3245
330.000		-.3355	-.3325

ARC11-014IA19 OTS   SRB-NO4 MPS-OFF ET BASE   (REUI44)   (04 FEB 75)

| REFERENCE DATA | PARAMETRIC DATA |

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   = 1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL = 1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.106 BETA (1) =   .000   RADIUS   .000   .333   .667
                                               PHI
                                                 .000 -.3872 -.3937 -.3943
                                               30.000   -.4010 -.4389
                                               60.000   -.4020 -.4143
                                               90.000   -.4016 -.4158
                                              120.000   -.3912 -.4230
                                              135.000   -.3939 -.3944
                                              150.000   -.3932 -.3816
                                              165.000   -.3876 -.3786
                                              180.000   -.3806 -.3818
                                              195.000   -.3833 -.4142
                                              210.000   -.3880 -.4068
                                              225.000   -.3897 -.4275
                                              240.000   .0000 -.4223
                                              270.000   -.3899 -.4070
                                              300.000   -.3840 -.3914
                                              330.000   -.3838 -.3960

ALPHA (2) = -4.038 BETA (1) =   .000   RADIUS   .000   .333   .667
                                               PHI
                                                 .000 -.3649 -.3769 -.3779
                                               30.000   -.3799 -.3874
                                               60.000   -.3741 -.3942
                                               90.000   -.3765 -.3988
                                              120.000   -.3728 -.3827
                                              135.000   -.3763 -.3754
                                              150.000   -.3705 -.3672
                                              165.000   -.3669 -.3650
                                              180.000   -.3663 -.3625
                                              195.000   -.3709 -.3883
                                              210.000   -.3740 -.4008
                                              225.000   -.3809 -.3903
                                              240.000   .0000 -.3940
                                              270.000   -.3733 -.4065
                                              300.000   -.3648 -.3923
                                              330.000   -.3637 -.3808

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI44)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.363 BETA (1) = -4.003

RADIUS PHI	.000	.333	.667
.000	-.4066	-.4131	-.4318
30.000		-.4142	-.4318
60.000		-.4194	-.4372
90.000		-.4207	-.4294
120.000		-.4041	-.4235
135.000		-.4078	-.4079
150.000		-.4030	-.4029
165.000		-.3989	-.3958
180.000		-.4055	-.3913
195.000		-.4091	-.4043
210.000		-.4079	-.4181
225.000		-.4092	-.4188
240.000		.0000	-.4190
270.000		-.4049	-.4119
300.000		-.4012	-.4415
330.000		-.4090	-.4302

ALPHA (3) = -.363 BETA (2) = .012

RADIUS PHI	.000	.333	.667
.000	-.3462	-.3666	-.3802
30.000		-.3707	-.3945
60.000		-.3740	-.4021
90.000		-.3745	-.4003
120.000		-.3686	-.3844
135.000		-.3704	-.3617
150.000		-.3645	-.3575
165.000		-.3563	-.3551
180.000		-.3547	-.3486
195.000		-.3554	-.3631
210.000		-.3596	-.3807
225.000		-.3608	-.3807
240.000		.0000	-.3894
270.000		-.3537	-.3948
300.000		-.3574	-.4043
330.000		-.3590	-.3825

ALPHA (3) = -.393 BETA (3) = 4.022

RADIUS PHI	.000	.333	.667
.000	-.3856	-.3935	-.4165
30.000		-.3920	-.4088
60.000		-.3881	-.4090
90.000		-.3881	-.3908
120.000		-.3839	-.3934
135.000		-.3891	-.4002
150.000		-.3896	-.4054
165.000		-.3810	-.4027
180.000		-.3831	-.3745
195.000		-.3833	-.3679

ARC11-014IA19 OTS   SRB-NOM MFS-OFF ET BASE   (REUI44)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.393 BETA (3) = 4.022   RADIUS   .000   .333   .667
                                          PHI
                                          210.000   -.3801 -.3764
                                          225.000   -.3928 -.3866
                                          240.000   .0000 -.3966
                                          270.000   -.3896 -.4059
                                          300.000   -.3906 -.4120
                                          330.000   -.3927 -.4124

ALPHA (4) = 3.888 BETA (1) =   .000   RADIUS   .000   .333   .667
                                          PHI
                                           .000   -.4023 -.4050 -.4158
                                          30.000   -.4093 -.4310
                                          60.000   -.4099 -.4245
                                          90.000   -.4097 -.4275
                                          120.000   -.4023 -.4148
                                          135.000   -.4073 -.4065
                                          150.000   -.4047 -.3978
                                          165.000   -.3970 -.3960
                                          180.000   -.4009 -.3907
                                          195.000   -.3990 -.4170
                                          210.000   -.4021 -.4222
                                          225.000   -.4004 -.4148
                                          240.000   .0000 -.4112
                                          270.000   -.3970 -.4182
                                          300.000   -.3932 -.4090
                                          330.000   -.3983 -.4143

ALPHA (5) = 7.977 BETA (1) =   .000   RADIUS   .000   .333   .667
                                          PHI
                                           .000   -.4249 -.4229 -.4274
                                          30.000   -.4318 -.4475
                                          60.000   -.4328 -.4344
                                          90.000   -.4311 -.4404
                                          120.000   -.4214 -.4411
                                          135.000   -.4294 -.4421
                                          150.000   -.4270 -.4339
                                          165.000   -.4202 -.4351
                                          180.000   -.4219 -.4202
                                          195.000   -.4221 -.4462
                                          210.000   -.4226 -.4427
                                          225.000   -.4206 -.4368
                                          240.000   .0000 -.4333
                                          270.000   -.4154 -.4335
                                          300.000   -.4109 -.4221
                                          330.000   -.4185 -.4412

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI45)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   . DEPENDENT VARIABLE CP

ALPHA (1) = -8.244 BETA (1) = -.009   RADIUS   .000   .333   .667
                                               PHI
                                                 .000   -.3332   -.3194   -.2917
                                               30.000   -.3346   -.3596
                                               60.000   -.3336   -.3623
                                               90.000   -.3402   -.3613
                                              120.000   -.3314   -.3469
                                              135.000   -.3320   -.3299
                                              150.000   -.3310   -.3261
                                              165.000   -.3265   -.3217
                                              180.000   -.3320   -.3198
                                              195.000   -.3324   -.3496
                                              210.000   -.3336   -.3524
                                              225.000   -.3365   -.3413
                                              240.000   .0000   -.3461
                                              270.000   -.3268   -.3413
                                              300.000   -.3124   -.3235
                                              330.000   -.3093   -.3126

ALPHA (2) = -3.936 BETA (1) = -.009   RADIUS   .000   .333   .667
                                               PHI
                                                 .000   -.2913   -.2978   -.3025
                                               30.000   -.3027   -.3199
                                               60.000   -.3000   -.3186
                                               90.000   -.3023   -.3209
                                              120.000   -.2965   -.3014
                                              135.000   -.2954   -.2916
                                              150.000   -.2934   -.2847
                                              165.000   -.2881   -.2830
                                              180.000   -.2880   -.2804
                                              195.000   -.2897   -.2964
                                              210.000   -.2877   -.3075
                                              225.000   -.2904   -.3051
                                              240.000   .0000   -.3056
                                              270.000   -.2873   -.3122
                                              300.000   -.2817   -.3003
                                              330.000   -.2918   -.3027

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI45)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.309 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                               PHI
                                                .000   -.2994 -.2959 -.2929
                                               30.000   -.3127 -.3259
                                               60.000   -.3139 -.3066
                                               90.000   -.3107 -.3202
                                              120.000   -.2957 -.3039
                                              135.000   -.3006 -.2984
                                              150.000   -.2987 -.2952
                                              165.000   -.2935 -.2938
                                              180.000   -.2997 -.2895
                                              195.000   -.3023 -.3004
                                              210.000   -.3053 -.3077
                                              225.000   -.3076 -.3102
                                              240.000   .0000 -.3054
                                              270.000   -.2962 -.2984
                                              300.000   -.2871 -.2844
                                              330.000   -.2890 -.3238

ALPHA (3) = -.360 BETA (2) =   .009   RADIUS   .000   .333   .667
                                               PHI
                                                .000   -.2783 -.2746 -.2816
                                               30.000   -.2810 -.3032
                                               60.000   -.2798 -.2883
                                               90.000   -.2853 -.3021
                                              120.000   -.2802 -.2912
                                              135.000   -.2829 -.2850
                                              150.000   -.2806 -.2749
                                              165.000   -.2777 -.2731
                                              180.000   -.2759 -.2691
                                              195.000   -.2767 -.2832
                                              210.000   -.2767 -.2914
                                              225.000   -.2783 -.2886
                                              240.000   .0000 -.2896
                                              270.000   -.2723 -.2968
                                              300.000   -.2667 -.2756
                                              330.000   -.2728 -.2978

ALPHA (3) = -.401 BETA (3) = 4.025   RADIUS   .000   .333   .667
                                               PHI
                                                .000   -.2952 -.2954 -.3096
                                               30.000   -.2918 -.3106
                                               60.000   -.2901 -.2882
                                               90.000   -.2887 -.2966
                                              120.000   -.2898 -.3075
                                              135.000   -.3008 -.3100
                                              150.000   -.3017 -.3124
                                              165.000   -.2987 -.3145
                                              180.000   -.2966 -.3025
                                              195.000   -.2979 -.2985

ARC11-014IA19 OTS   SRB-NO4 MPS-OFF ET BASE   (REUI45)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.405 BETA (3) = 4.025

RADIUS	.000	.333	.667
PHI			
210.000		-.3004	-.3041
225.000		-.3033	-.3080
240.000		.0000	-.3136
270.000		-.3077	-.3170
300.000		-.3077	-.3131
330.000		-.3096	-.3388

ALPHA (4) = 3.873 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.2820	-.2724	-.2805
30.000		-.2844	-.3046
60.000		-.2929	-.2866
90.000		-.2940	-.2994
120.000		-.2868	-.3069
135.000		-.2924	-.2959
150.000		-.2882	-.2863
165.000		-.2837	-.2835
180.000		-.2829	-.2773
195.000		-.2805	-.2924
210.000		-.2802	-.2956
225.000		-.2802	-.3158
240.000		.0000	-.2983
270.000		-.2757	-.2924
300.000		-.2724	-.2718
330.000		-.2693	-.3050

ALPHA (5) = 7.989 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3095	-.2954	-.3114
30.000		-.3077	-.3292
60.000		-.3056	-.3106
90.000		-.3096	-.3166
120.000		-.3027	-.3144
135.000		-.3048	-.3102
150.000		-.3025	-.3041
165.000		-.2976	-.2998
180.000		-.2966	-.2946
195.000		-.2958	-.3095
210.000		-.2949	-.3120
225.000		-.2939	-.3285
240.000		.0000	-.3146
270.000		-.2888	-.3090
300.000		-.2865	-.2928
330.000		-.2896	-.3289

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI46)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.175 BETA (1) =   .003   RADIUS   .000   .333   .667
                                              PHI
                                                .000 -.2624 -.2624 -.2629
                                               30.000   -.2712 -.3007
                                               60.000   -.2703 -.2875
                                               90.000   -.2696 -.2773
                                              120.000   -.2595 -.2892
                                              135.000   -.2631 -.2632
                                              150.000   -.2632 -.2568
                                              165.000   -.2597 -.2535
                                              180.000   -.2582 -.2560
                                              195.000   -.2590 -.2711
                                              210.000   -.2591 -.2676
                                              225.000   -.2569 -.2797
                                              240.000   .0000 -.2731
                                              270.000   -.2577 -.2657
                                              300.000   -.2591 -.2944
                                              330.000   -.2610 -.2729

ALPHA (2) = -4.00 BETA (1) =   .003   RADIUS   .000   .333   .667
                                              PHI
                                                .000 -.2300 -.2237 -.2241
                                               30.000   -.2263 -.2402
                                               60.000   -.2260 -.2332
                                               90.000   -.2288 -.2463
                                              120.000   -.2252 -.2399
                                              135.000   -.2296 -.2353
                                              150.000   -.2274 -.2306
                                              165.000   -.2240 -.2276
                                              180.000   -.2293 -.2219
                                              195.000   -.2291 -.2352
                                              210.000   -.2285 -.2399
                                              225.000   -.2297 -.2394
                                              240.000   .0000 -.2337
                                              270.000   -.2263 -.2269
                                              300.000   -.2230 -.2233
                                              330.000   -.2214 -.2254

ARC11-014IA19 OTS   SRB-ON MPS-OFF ET BASE   (REUI46)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.348 BETA (1) = -4.000

RADIUS PHI	.000	.333	.667
.000	-.2418	-.2368	-.2259
30.000		-.2482	-.2723
60.000		-.2477	-.2585
90.000		-.2502	-.2721
120.000		-.2414	-.2598
135.000		-.2442	-.2418
150.000		-.2431	-.2386
165.000		-.2377	-.2378
180.000		-.2400	-.2323
195.000		-.2394	-.2406
210.000		-.2400	-.2458
225.000		-.2393	-.2502
240.000		.0000	-.2464
270.000		-.2353	-.2303
300.000		-.2238	-.2214
330.000		-.2272	-.2295

ALPHA (3) = -.369 BETA (2) = .016

RADIUS PHI	.000	.333	.667
.000	-.2229	-.2163	-.2031
30.000		-.2227	-.2387
60.000		-.2228	-.2319
90.000		-.2265	-.2397
120.000		-.2219	-.2307
135.000		-.2263	-.2261
150.000		-.2254	-.2205
165.000		-.2204	-.2199
180.000		-.2235	-.2146
195.000		-.2223	-.2319
210.000		-.2231	-.2424
225.000		-.2213	-.2357
240.000		.0000	-.2326
270.000		-.2174	-.2263
300.000		-.2111	-.2088
330.000		-.2119	-.2122

ALPHA (3) = -.360 BETA (3) = 4.028

RADIUS PHI	.000	.333	.667
.000	-.2369	-.2334	-.2179
30.000		-.2281	-.2294
60.000		-.2266	-.2226
90.000		-.2277	-.2310
120.000		-.2230	-.2370
135.000		-.2293	-.2431
150.000		-.2257	-.2487
165.000		-.2291	-.2512
180.000		-.2297	-.2433
195.000		-.2334	-.2496

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI46)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = -.360 BETA (3) = 4.028   RADIUS   .000   .333   .667
                                           PHI
                                           210.000   -.2355 -.2534
                                           225.000   -.2372 -.2599
                                           240.000   .0000 -.2692
                                           270.000   -.2427 -.2523
                                           300.000   -.2399 -.2407
                                           330.000   -.2433 -.2591

ALPHA (4) = 3.900 BETA (1) =   .006   RADIUS   .000   .333   .667
                                           PHI
                                            .000   -.2227 -.2020 -.2196
                                           30.000   -.2146 -.2110
                                           60.000   -.2241 -.2220
                                           90.000   -.2263 -.2312
                                           120.000   -.2215 -.2258
                                           135.000   -.2254 -.2213
                                           150.000   -.2237 -.2119
                                           165.000   -.2179 -.2111
                                           180.000   -.2193 -.2049
                                           195.000   -.2188 -.2331
                                           210.000   -.2211 -.2439
                                           225.000   -.2196 -.2447
                                           240.000   .0000 -.2364
                                           270.000   -.2147 -.2229
                                           300.000   -.2088 -.2058
                                           330.000   -.2092 -.2051

ALPHA (5) = 7.653 BETA (1) =   .006   RADIUS   .000   .333   .667
                                           PHI
                                            .000   -.2023 -.2044 -.2341
                                           30.000   -.2078 -.2411
                                           60.000   -.2108 -.2247
                                           90.000   -.2136 -.2326
                                           120.000   -.2131 -.2235
                                           135.000   -.2147 -.2100
                                           150.000   -.2103 -.2064
                                           165.000   -.2039 -.2039
                                           180.000   -.2058 -.1922
                                           195.000   -.2042 -.2150
                                           210.000   -.2030 -.2258
                                           225.000   -.2044 -.2398
                                           240.000   .0000 -.2359
                                           270.000   -.2007 -.2191
                                           300.000   -.1981 -.2031
                                           330.000   -.2044 -.2439

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI47)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.050 BETA (1) = -.003

RADIUS	.000	.333	.667
PHI			
.000	-.2938	-.2933	-.2796
30.000		-.2994	-.2943
60.000		-.2954	-.2866
90.000		-.2963	-.3152
120.000		-.2918	-.3266
135.000		-.3001	-.3135
150.000		-.2999	-.3177
165.000		-.2935	-.3092
180.000		-.2974	-.2954
195.000		-.2972	-.3049
210.000		-.2944	-.3110
225.000		-.2963	-.3156
240.000		.0000	-.3089
270.000		-.2883	-.3049
300.000		-.2778	-.2955
330.000		-.2866	-.2946

ALPHA (2) = -.150 BETA (1) = -4.000

RADIUS	.000	.333	.667
PHI			
.000	-.2819	-.2729	-.2591
30.000		-.2826	-.2969
60.000		-.2809	-.2843
90.000		-.2855	-.2907
120.000		-.2797	-.2870
135.000		-.2840	-.2828
150.000		-.2860	-.2778
165.000		-.2813	-.2762
180.000		-.2904	-.2738
195.000		-.2877	-.2830
210.000		-.2835	-.2847
225.000		-.2794	-.2975
240.000		.0000	-.2863
270.000		-.2657	-.2693
300.000		-.2574	-.2535
330.000		-.2614	-.2630

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI47)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.129 BETA (2) =   .009   RADIUS   .000   .333   .667
PHI

PHI	.000	.333	.667
.000	-.2635	-.2572	-.2425
30.000		-.2583	-.2716
60.000		-.2586	-.2680
90.000		-.2671	-.2797
120.000		-.2639	-.2735
135.000		-.2690	-.2666
150.000		-.2690	-.2619
165.000		-.2640	-.2596
180.000		-.2666	-.2513
195.000		-.2655	-.2651
210.000		-.2649	-.2807
225.000		-.2643	-.2801
240.000		.0000	-.2752
270.000		-.2519	-.2704
300.000		-.2428	-.2461
330.000		-.2471	-.2456

ALPHA (2) = -.234 BETA (3) = 4.028   RADIUS   .000   .333   .667
PHI

PHI	.000	.333	.667
.000	-.2831	-.2738	-.2680
30.000		-.2754	-.2799
60.000		-.2681	-.2810
90.000		-.2645	-.2889
120.000		-.2697	-.2937
135.000		-.2774	-.2944
150.000		-.2766	-.2912
165.000		-.2746	-.2937
180.000		-.2749	-.3045
195.000		-.2804	-.3083
210.000		-.2815	-.3136
225.000		-.2837	-.3088
240.000		.0000	-.3317
270.000		-.2978	-.2933
300.000		-.2817	-.2860
330.000		-.2779	-.3055

ALPHA (3) = 3.867 BETA (1) =   .009   RADIUS   .000   .333   .667
PHI

PHI	.000	.333	.667
.000	-.2491	-.2216	-.2504
30.000		-.2424	-.2357
60.000		-.2503	-.2463
90.000		-.2548	-.2588
120.000		-.2524	-.2576
135.000		-.2611	-.2673
150.000		-.2631	-.2542
165.000		-.2552	-.2494
180.000		-.2561	-.2443
195.000		-.2552	-.2631

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REU147)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.867 BETA (1) =   .009   RADIUS   .000   .333   .667
                                                 PHI
                                                 210.000   -.2492   -.2820
                                                 225.000   -.2463   -.2762
                                                 240.000   .0000   -.2672
                                                 270.000   -.2405   -.2504
                                                 300.000   -.2352   -.2343
                                                 330.000   -.2375   -.2365

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI48)   (04 FEB 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   .000
RUDDER =   .000   MACH   =   1.400
GIMBAL =   1.000

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.143 BETA (1) = -.003

RADIUS	.000	.333	.667
PHI			
.000	-.2254	-.2213	-.2194
30.000		-.2234	-.2412
60.000		-.2230	-.2313
90.000		-.2250	-.2413
120.000		-.2220	-.2346
135.000		-.2288	-.2337
150.000		-.2266	-.2281
165.000		-.2214	-.2248
180.000		-.2238	-.2192
195.000		-.2259	-.2363
210.000		-.2260	-.2371
225.000		-.2251	-.2355
240.000		.0000	-.2305
270.000		-.2227	-.2220
300.000		-.2163	-.2200
330.000		-.2177	-.2237

ALPHA (2) = -.243 BETA (1) = -4.003

RADIUS	.000	.333	.667
PHI			
.000	-.2350	-.2273	-.2170
30.000		-.2375	-.2649
60.000		-.2373	-.2469
90.000		-.2380	-.2607
120.000		-.2317	-.2446
135.000		-.2353	-.2354
150.000		-.2344	-.2285
165.000		-.2340	-.2279
180.000		-.2329	-.2250
195.000		-.2333	-.2320
210.000		-.2350	-.2359
225.000		-.2328	-.2397
240.000		.0000	-.2347
270.000		-.2240	-.2192
300.000		-.2167	-.2106
330.000		-.2173	-.2173

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI48)

SECTION (S)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.324 BETA (2) =   .009   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2169 -.2066 -.1918
                                             30.000   -.2143 -.2343
                                             60.000   -.2179 -.2262
                                             90.000   -.2211 -.2332
                                            120.000   -.2182 -.2249
                                            135.000   -.2201 -.2185
                                            150.000   -.2202 -.2155
                                            165.000   -.2161 -.2131
                                            180.000   -.2168 -.2119
                                            195.000   -.2168 -.2249
                                            210.000   -.2150 -.2357
                                            225.000   -.2168 -.2320
                                            240.000   .0000 -.2273
                                            270.000   -.2068 -.2187
                                            300.000   -.1988 -.2013
                                            330.000   -.2036 -.2029

ALPHA (2) = -.435 BETA (3) = 4.025   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2269 -.2236 -.2075
                                             30.000   -.2178 -.2191
                                             60.000   -.2152 -.2152
                                             90.000   -.2175 -.2213
                                            120.000   -.2163 -.2275
                                            135.000   -.2181 -.2341
                                            150.000   -.2177 -.2396
                                            165.000   -.2150 -.2450
                                            180.000   -.2215 -.2446
                                            195.000   -.2283 -.2586
                                            210.000   -.2270 -.2713
                                            225.000   -.2278 -.2534
                                            240.000   .0000 -.2597
                                            270.000   -.2300 -.2379
                                            300.000   -.2287 -.2310
                                            330.000   -.2286 -.2497

ALPHA (3) = 4.032 BETA (1) = -.006   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2099 -.1882 -.2082
                                             30.000   -.2022 -.1971
                                             60.000   -.2104 -.2081
                                             90.000   -.2143 -.2207
                                            120.000   -.2088 -.2160
                                            135.000   -.2146 -.2115
                                            150.000   -.2149 -.2071
                                            165.000   -.2083 -.2040
                                            180.000   -.2070 -.1953
                                            195.000   -.2095 -.2215

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI48)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 4.032 BETA (1) = -.006   RADIUS   .000   .333   .667
                                             PHI
                                             210.000   -.2083 -.2395
                                             225.000   -.2117 -.2329
                                             240.000   .0000 -.2257
                                             270.000   -.2012 -.2113
                                             300.000   -.1943 -.1941
                                             330.000   -.1979 -.1942

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REU149)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.046 BETA (1) =   .000   RADIUS   .000   .333   .667
                                            PHI
                                             .000   -.3361 -.3420 -.3493
                                           30.000   -.3426 -.3662
                                           60.000   -.3459 -.3574
                                           90.000   -.3458 -.3526
                                          120.000   -.3401 -.3536
                                          135.000   -.3325 -.3267
                                          150.000   -.3311 -.3099
                                          165.000   -.3285 -.2990
                                          180.000   -.3296 -.3146
                                          195.000   -.3366 -.3510
                                          210.000   -.3339 -.3726
                                          225.000   -.3360 -.3666
                                          240.000   .0000 -.3479
                                          270.000   -.3418 -.3422
                                          300.000   -.3388 -.3430
                                          330.000   -.3414 -.3575

ALPHA (2) = -.196 BETA (1) = -4.003   RADIUS   .000   .333   .667
                                            PHI
                                             .000   -.3401 -.3462 -.3647
                                           30.000   -.3539 -.3894
                                           60.000   -.3601 -.3725
                                           90.000   -.3533 -.3612
                                          120.000   -.3486 -.3521
                                          135.000   -.3519 -.3363
                                          150.000   -.3519 -.3226
                                          165.000   -.3446 -.3116
                                          180.000   -.3357 -.3116
                                          195.000   -.3395 -.3410
                                          210.000   -.3331 -.3661
                                          225.000   -.3427 -.3780
                                          240.000   .0000 -.3883
                                          270.000   -.3440 -.3643
                                          300.000   -.3409 -.3525
                                          330.000   -.3432 -.3776

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI49)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.162 BETA (2) =   .009   RADIUS   .000   .333   .667
                                            PHI
                                             .000   -.3315 -.3411 -.3038
                                           30.000   -.3471 -.3361
                                           60.000   -.3382 -.3189
                                           90.000   -.3363 -.3491
                                          120.000   -.3245 -.3387
                                          135.000   -.3218 -.3208
                                          150.000   -.3172 -.3055
                                          165.000   -.3089 -.2997
                                          180.000   -.3227 -.2933
                                          195.000   -.3216 -.3292
                                          210.000   -.3293 -.3555
                                          225.000   -.3351 -.3423
                                          240.000   .0000 -.3226
                                          270.000   -.3339 -.3196
                                          300.000   -.3367 -.3104
                                          330.000   -.3393 -.3219

ALPHA (2) = -.281 BETA (3) = 4.022   RADIUS   .000   .333   .667
                                            PHI
                                             .000   -.3393 -.3411 -.3438
                                           30.000   -.3333 -.3510
                                           60.000   -.3391 -.3360
                                           90.000   -.3433 -.3454
                                          120.000   -.3441 -.3628
                                          135.000   -.3515 -.3600
                                          150.000   -.3425 -.3414
                                          165.000   -.3237 -.3508
                                          180.000   -.3242 -.3347
                                          195.000   -.3214 -.2991
                                          210.000   -.3208 -.3095
                                          225.000   -.3258 -.3244
                                          240.000   .0000 -.3308
                                          270.000   -.3415 -.3400
                                          300.000   -.3399 -.3468
                                          330.000   -.3457 -.3694

ALPHA (3) = 3.828 BETA (1) = -.003   RADIUS   .000   .333   .667
                                            PHI
                                             .000   -.3261 -.3414 -.3154
                                           30.000   -.3414 -.3493
                                           60.000   -.3418 -.3357
                                           90.000   -.3287 -.3370
                                          120.000   -.3259 -.3314
                                          135.000   -.3261 -.3204
                                          150.000   -.3189 -.3049
                                          165.000   -.3155 -.2907
                                          180.000   -.3161 -.2967
                                          195.000   -.3197 -.3452

ASC11-014IA19 JTS   SRB-OFF MPS-OFF ET BASE   (REUI49)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.828 BETA (1) = -.003

RADIUS	.000	.333	.657
PHI			
210.000		-.3227	-.3691
225.000		-.3229	-.3521
240.000		.0000	-.3347
270.000		-.3297	-.3307
300.000		-.3261	-.3182
330.000		-.3304	-.3355

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REVISO)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) =   .003   RADIUS   .000   .333   .667
                                             PHI
                                                .000   -.3781 -.3943 -.3944
                                               30.000   -.3960 -.4064
                                               60.000   -.3909 -.4246
                                               90.000   -.3931 -.4340
                                              120.000   -.3905 -.4172
                                              135.000   -.3931 -.3953
                                              150.000   -.3912 -.3943
                                              165.000   -.3849 -.3895
                                              180.000   -.3865 -.3791
                                              195.000   -.3913 -.3999
                                              210.000   -.3947 -.4161
                                              225.000   -.3985 -.4098
                                              240.000   .0000 -.4091
                                              270.000   -.3931 -.4299
                                              300.000   -.3772 -.4212
                                              330.000   -.3834 -.4025

ALPHA (2) = -.162 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                             PHI
                                                .000   -.4079 -.4188 -.4326
                                               30.000   -.4207 -.4340
                                               60.000   -.4208 -.4423
                                               90.000   -.4307 -.4446
                                              120.000   -.4210 -.4315
                                              135.000   -.4188 -.4115
                                              150.000   -.4177 -.4035
                                              165.000   -.4075 -.3998
                                              180.000   -.4112 -.3955
                                              195.000   -.4098 -.4048
                                              210.000   -.4105 -.4179
                                              225.000   -.4120 -.4196
                                              240.000   .0000 -.4266
                                              270.000   -.4021 -.4198
                                              300.000   -.4027 -.4333
                                              330.000   -.4116 -.4270

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI50)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.141 BETA (2) = .012

RADIUS	.000	.333	.667
PHI			
.000	-.3459	-.3679	-.3795
30.000		-.3677	-.3904
60.000		-.3685	-.3926
90.000		-.3746	-.4052
120.000		-.3683	-.3900
135.000		-.3695	-.3554
150.000		-.3654	-.3506
165.000		-.3578	-.3488
180.000		-.3526	-.3424
195.000		-.3511	-.3626
210.000		-.3538	-.3794
225.000		-.3555	-.3762
240.000		.0000	-.3880
270.000		-.3482	-.3999
300.000		-.3521	-.3983
330.000		-.3608	-.3819

ALPHA (2) = -.234 BETA (3) = 4.025

RADIUS	.000	.333	.667
PHI			
.000	-.4051	-.4166	-.4348
30.000		-.4104	-.4254
60.000		-.4076	-.4207
90.000		-.4078	-.4072
120.000		-.4047	-.4167
135.000		-.4117	-.4230
150.000		-.4088	-.4295
165.000		-.4016	-.4254
180.000		-.4029	-.3953
195.000		-.4063	-.3925
210.000		-.4048	-.4000
225.000		-.4087	-.4051
240.000		.0000	-.4207
270.000		-.4138	-.4358
300.000		-.4120	-.4355
330.000		-.4155	-.4316

ALPHA (3) = 3.879 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.3950	-.3977	-.4136
30.000		-.4052	-.4236
60.000		-.4015	-.4188
90.000		-.3993	-.4257
120.000		-.3964	-.4089
135.000		-.4015	-.4025
150.000		-.4000	-.3952
165.000		-.3917	-.3966
180.000		-.3935	-.3837
195.000		-.3924	-.4103

ARC11-014TA19 OTS   SRB-OFF MPS-OFF ET BASE   (REU150)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.879 BETA (1) = .000

PHI	RADIUS .000	.333	.667
210.000		-.3967	-.4144
225.000		-.3928	-.4080
240.000		.0000	-.4058
270.000		-.3894	-.4151
300.000		-.3855	-.4049
330.000		-.3914	-.4103

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUI51)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.004 BETA (1) =   .000   RADIUS   .000   .333   .667
                                              PHI
                                                 .000 -.3181 -.3240 -.3292
                                               30.000   -.3280 -.3434
                                               60.000   -.3286 -.3493
                                               90.000   -.3310 -.3566
                                              120.000   -.3230 -.3324
                                              135.000   -.3246 -.3197
                                              150.000   -.3216 -.3142
                                              165.000   -.3160 -.3132
                                              180.000   -.3183 -.2998
                                              195.000   -.3157 -.3186
                                              210.000   -.3128 -.3347
                                              225.000   -.3152 -.3341
                                              240.000   .0000 -.3365
                                              270.000   -.3115 -.3430
                                              300.000   -.3050 -.3306
                                              330.000   -.3152 -.3274

ALPHA (2) = -.138 BETA (1) = -4.003   RADIUS   .000   .333   .667
                                              PHI
                                                 .000 -.3177 -.3123 -.3268
                                               30.000   -.3287 -.3472
                                               60.000   -.3342 -.3497
                                               90.000   -.3353 -.3600
                                              120.000   -.3275 -.3340
                                              135.000   -.3308 -.3180
                                              150.000   -.3284 -.3159
                                              165.000   -.3244 -.3140
                                              180.000   -.3292 -.3144
                                              195.000   -.3347 -.3284
                                              210.000   -.3373 -.3391
                                              225.000   -.3387 -.3440
                                              240.000   .0000 -.3391
                                              270.000   -.3171 -.3291
                                              300.000   -.3055 -.3067
                                              330.000   -.3098 -.3403

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REUT51)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.225 BETA (2) = .009   RADIUS   .000   .333   .667
                                           PHI
                                             .000   -.3074 -.3007 -.3063
                                           30.000   -.3065 -.3227
                                           60.000   -.3036 -.3086
                                           90.000   -.3082 -.3288
                                          120.000   -.3061 -.3192
                                          135.000   -.3123 -.3172
                                          150.000   -.3104 -.3075
                                          165.000   -.3064 -.3056
                                          180.000   -.3075 -.2924
                                          195.000   -.3061 -.3068
                                          210.000   -.3078 -.3160
                                          225.000   -.3098 -.3144
                                          240.000   .0000 -.3162
                                          270.000   -.2977 -.3217
                                          300.000   -.2892 -.2980
                                          330.000   -.3009 -.3181

ALPHA (2) = -.252 BETA (3) = 4.022   RADIUS   .000   .333   .667
                                           PHI
                                             .000   -.3167 -.3223 -.3319
                                           30.000   -.3191 -.3332
                                           60.000   -.3142 -.3082
                                           90.000   -.3090 -.3301
                                          120.000   -.3160 -.3417
                                          135.000   -.3251 -.3427
                                          150.000   -.3294 -.3406
                                          165.000   -.3254 -.3393
                                          180.000   -.3250 -.3275
                                          195.000   -.3254 -.3298
                                          210.000   -.3255 -.3306
                                          225.000   -.3276 -.3297
                                          240.000   .0000 -.3377
                                          270.000   -.3322 -.3432
                                          300.000   -.3320 -.3388
                                          330.000   -.3320 -.3565

ALPHA (3) = 3.864 BETA (1) = .000   RADIUS   .000   .333   .667
                                           PHI
                                             .000   -.3106 -.2977 -.3063
                                           30.000   -.3104 -.3305
                                           60.000   -.3173 -.3104
                                           90.000   -.3191 -.3266
                                          120.000   -.3153 -.3383
                                          135.000   -.3202 -.3296
                                          150.000   -.3197 -.3309
                                          165.000   -.3143 -.3229
                                          180.000   -.3115 -.3095
                                          195.000   -.3052 -.3175

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ARC11-014IA19 JTS   SRB-OFF MPS-OFF ET BASE   (REUI51)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.864 BETA (1) =   .000   RADIUS   .000   .333   .667
                                               PHI
                                               210.000   -.3030 -.3190
                                               225.000   -.3034 -.3451
                                               240.000   .0000 -.3214
                                               270.000   -.2996 -.3169
                                               300.000   -.2972 -.2982
                                               330.000   -.2967 -.3351

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REU152)   (04 FEB 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP = .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT
SCALE = .0200

ELV-IB = 8.000 ELV-OB = 4.000
RUDDER = .000   MACH = 1.400
GIMBAL = 1.000

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.990 BETA (1) = .000

RADIUS	.000	.333	.667
PHI			
.000	-.2784	-.2759	-.2819
30.000		-.2776	-.3174
60.000		-.2810	-.2893
90.000		-.2864	-.2991
120.000		-.2860	-.2930
135.000		-.2911	-.2913
150.000		-.2885	-.2832
165.000		-.2838	-.2787
180.000		-.2823	-.2807
195.000		-.2820	-.2899
210.000		-.2795	-.2927
225.000		-.2795	-.3168
240.000		.0000	-.3029
270.000		-.2751	-.2999
300.000		-.2690	-.2866
330.000		-.2729	-.2852

ALPHA (2) = -.195 BETA (1) = -4.003

RADIUS	.000	.333	.667
PHI			
.000	-.2845	-.2760	-.2641
30.000		-.2823	-.3014
60.000		-.2915	-.2873
90.000		-.2959	-.2985
120.000		-.2792	-.2842
135.000		-.2848	-.2913
150.000		-.2879	-.2983
165.000		-.2801	-.2866
180.000		-.2915	-.2756
195.000		-.2882	-.2835
210.000		-.2827	-.2810
225.000		-.2790	-.2945
240.000		.0000	-.2887
270.000		-.2656	-.2701
300.000		-.2600	-.2552
330.000		-.2672	-.2621

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REVI52)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.198 BETA (2) =   .009   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2618   -.2547   -.2418
                                             30.000   -.2588   -.2712
                                             60.000   -.2565   -.2662
                                             90.000   -.2649   -.2791
                                            120.000   -.2656   -.2723
                                            135.000   -.2703   -.2669
                                            150.000   -.2678   -.2630
                                            165.000   -.2634   -.2606
                                            180.000   -.2647   -.2507
                                            195.000   -.2633   -.2648
                                            210.000   -.2650   -.2817
                                            225.000   -.2644   -.2931
                                            240.000   .0000   -.2740
                                            270.000   -.2516   -.2703
                                            300.000   -.2422   -.2451
                                            330.000   -.2483   -.2491

ALPHA (2) = -.186 BETA (3) = 4.022   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2795   -.2754   -.2650
                                             30.000   -.2717   -.2750
                                             60.000   -.2619   -.2808
                                             90.000   -.2614   -.2855
                                            120.000   -.2683   -.2927
                                            135.000   -.2734   -.2930
                                            150.000   -.2716   -.2913
                                            165.000   -.2697   -.2936
                                            180.000   -.2740   -.2991
                                            195.000   -.2786   -.3029
                                            210.000   -.2797   -.3133
                                            225.000   -.2806   -.3066
                                            240.000   .0000   -.3321
                                            270.000   -.2812   -.2999
                                            300.000   -.2819   -.2836
                                            330.000   -.2747   -.3055

ALPHA (3) = 3.960 BETA (1) =   .000   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2468   -.2224   -.2493
                                             30.000   -.2388   -.2355
                                             60.000   -.2473   -.2449
                                             90.000   -.2514   -.2549
                                            120.000   -.2462   -.2521
                                            135.000   -.2567   -.2566
                                            150.000   -.2550   -.2513
                                            165.000   -.2518   -.2445
                                            180.000   -.2495   -.2376
                                            195.000   -.2471   -.2640

ARC11-014IA19 OTS   SRB-OFF MPS-OFF ET BASE   (REU152)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.960 BETA (1) = .000   RADIUS   .000   .333   .667
                                            PHI
                                            210.000   -.2457 -.2875
                                            225.000   -.2460 -.2755
                                            240.000   .0000 -.2653
                                            270.000   -.2412 -.2474
                                            300.000   -.2349 -.2318
                                            330.000   -.2340 -.2337

ARC11-014IA19 OTS   SRB-NOM NFS-OFF ET BASE   (REVIS3)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.179 BETA (1) = -.003   RADIUS   .000   .333   .667
                                               PHI
                                                  .000   -.3504 -.3540 -.3712
                                                30.000   -.3644 -.3881
                                                60.000   -.3729 -.3816
                                                90.000   -.3702 -.3549
                                               120.000   -.3620 -.3562
                                               135.000   -.3583 -.3311
                                               150.000   -.3553 -.3098
                                               165.000   -.3500 -.3063
                                               180.000   -.3399 -.3351
                                               195.000   -.3479 -.3688
                                               210.000   -.3481 -.3942
                                               225.000   -.3559 -.3855
                                               240.000   .0000 -.3633
                                               270.000   -.3570 -.3593
                                               300.000   -.3634 -.3599
                                               330.000   -.3585 -.3816

ALPHA (2) = -.339 BETA (1) = -3.997   RADIUS   .000   .333   .667
                                               PHI
                                                  .000   -.3511 -.3690 -.3700
                                                30.000   -.3775 -.3986
                                                60.000   -.3697 -.3812
                                                90.000   -.3684 -.3738
                                               120.000   -.3605 -.3619
                                               135.000   -.3564 -.3465
                                               150.000   -.3568 -.3339
                                               165.000   -.3572 -.3208
                                               180.000   -.3455 -.3222
                                               195.000   -.3441 -.3492
                                               210.000   -.3518 -.3771
                                               225.000   -.3516 -.3848
                                               240.000   .0000 -.3977
                                               270.000   -.3617 -.3735
                                               300.000   -.3589 -.3711
                                               330.000   -.3593 -.3835

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REVI53)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.360 BETA (2) =   .012

RADIUS	.000	.333	.667
PHI			
.000	-.3355	-.3315	-.3193
30.000		-.3401	-.3537
60.000		-.3373	-.3389
90.000		-.3316	-.3556
120.000		-.3243	-.3508
135.000		-.3213	-.3274
150.000		-.3132	-.3082
165.000		-.3136	-.2921
180.000		-.3256	-.3001
195.000		-.3255	-.3286
210.000		-.3325	-.3617
225.000		-.3335	-.3501
240.000		.0000	-.3375
270.000		-.3315	-.3332
300.000		-.3321	-.3227
330.000		-.3327	-.3348

ALPHA (2) = -.411 BETA (3) = 4.022

RADIUS	.000	.333	.667
PHI			
.000	-.3471	-.3582	-.3578
30.000		-.3456	-.3717
60.000		-.3491	-.3498
90.000		-.3519	-.3577
120.000		-.3580	-.3842
135.000		-.3598	-.3718
150.000		-.3540	-.3591
165.000		-.3433	-.3691
180.000		-.3415	-.3542
195.000		-.3336	-.3113
210.000		-.3293	-.3254
225.000		-.3416	-.3327
240.000		.0000	-.3439
270.000		-.3486	-.3669
300.000		-.3533	-.3580
330.000		-.3572	-.3754

ALPHA (3) = 3.936 BETA (1) = -.006

RADIUS	.000	.333	.667
PHI			
.000	-.3325	-.3346	-.3081
30.000		-.3366	-.3381
60.000		-.3428	-.3258
90.000		-.3297	-.3478
120.000		-.3231	-.3447
135.000		-.3156	-.3293
150.000		-.3174	-.3120
165.000		-.3095	-.2975
180.000		-.3195	-.2930
195.000		-.3193	-.3419

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI53)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.936 BETA (1) = -.006   RADIUS   .000   .333   .667
                                               PHI
                                               210.000   -.3243 -.3660
                                               225.000   -.3246 -.3477
                                               240.000   .0000 -.3294
                                               270.000   -.3255 -.3285
                                               300.000   -.3260 -.3213
                                               330.000   -.3288 -.3275

ARC11-014IA19 OTS   SRB-NO4 MPS-OFF ET BASE   (REUI54)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT.   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1) ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.149 BETA (1) =   .000   RADIUS   .000   .333   .667
                                               PHI
                                                 .000   -.3595 -.3720 -.3659
                                                30.000   -.3727 -.3790
                                                60.000   -.3597 -.3918
                                                90.000   -.3674 -.4078
                                               120.000   -.3622 -.3923
                                               135.000   -.3668 -.3850
                                               150.000   -.3658 -.3779
                                               165.000   -.3603 -.3724
                                               180.000   -.3641 -.3603
                                               195.000   -.3666 -.3787
                                               210.000   -.3701 -.3876
                                               225.000   -.3732 -.3807
                                               240.000   .0000 -.3821
                                               270.000   -.3696 -.4005
                                               300.000   -.3548 -.3877
                                               330.000   -.3564 -.3749

ALPHA (2) = -.315 BETA (1) = -4.003   RADIUS   .000   .333   .667
                                               PHI
                                                 .000   -.3805 -.3892 -.4058
                                                30.000   -.3912 -.4090
                                                60.000   -.3972 -.4131
                                                90.000   -.4000 -.4045
                                               120.000   -.3849 -.3970
                                               135.000   -.3839 -.3815
                                               150.000   -.3848 -.3750
                                               165.000   -.3771 -.3736
                                               180.000   -.3776 -.3655
                                               195.000   -.3795 -.3789
                                               210.000   -.3819 -.3946
                                               225.000   -.3861 -.3926
                                               240.000   .0000 -.3945
                                               270.000   -.3773 -.3868
                                               300.000   -.3739 -.4124
                                               330.000   -.3819 -.4037

ARC11-014IA19 OTS   SRB-NO4 MPS-OFF ET BASE   (REUI54)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.327 BETA (2) =   .006

RADIUS	.000	.333	.667
PHI			
.000	-.3228	-.3436	-.3566
30.000		-.3489	-.3681
60.000		-.3499	-.3672
90.000		-.3534	-.3757
120.000		-.3473	-.3545
135.000		-.3455	-.3331
150.000		-.3421	-.3279
165.000		-.3344	-.3244
180.000.		-.3277	-.3219
195.000		-.3273	-.3409
210.000		-.3293	-.3548
225.000		-.3314	-.3543
240.000		.0000	-.3670
270.000		-.3200	-.3755
300.000		-.3280	-.3781
330.000		-.3380	-.3579

ALPHA (2) = -.288 BETA (3) = 4.016

RADIUS	.000	.333	.667
PHI			
.000	-.3753	-.3847	-.4024
30.000		-.3842	-.4006
60.000		-.3754	-.3928
90.000		-.3772	-.3736
120.000		-.3733	-.3855
135.000		-.3777	-.3930
150.000		-.3742	-.3918
165.000		-.3703	-.3948
180.000		-.3731	-.3606
195.000		-.3748	-.3594
210.000		-.3731	-.3662
225.000		-.3740	-.3704
240.000		.0000	-.3849
270.000		-.3937	-.3943
300.000		-.3908	-.4007
330.000		-.3965	-.4026

ALPHA (3) = 3.911 BETA (1) = -.003

RADIUS	.000	.333	.667
PHI			
.000	-.3634	-.3655	-.3758
30.000		-.3694	-.3892
60.000		-.3672	-.3929
90.000		-.3711	-.3862
120.000		-.3615	-.3760
135.000		-.3687	-.3736
150.000		-.3675	-.3744
165.000		-.3610	-.3658
180.000		-.3506	-.3524
195.000		-.3520	-.3795

ARC11-014IA19 OFS   SRB-NOM MPS-OFF ET BASE   (REUI54)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.915 BETA (1) = -.003

PHI	RADIUS .000	.333	.667
210.000		-.3612	-.3809
225.000		-.3599	-.3734
240.000		.0000	-.3712
270.000		-.3575	-.3778
300.000		-.3547	-.3669
330.000		-.3569	-.3808

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REVI55) (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000   RADIUS   .000   .333   .667
                                             PHI
                                              .000 -.2840 -.2916 -.2946
                                            30.000   -.2963 -.3084
                                            60.000   -.2935 -.3140
                                            90.000   -.2938 -.3131
                                           120.000   -.2881 -.2947
                                           135.000   -.2885 -.2848
                                           150.000   -.2680 -.2804
                                           165.000   -.2819 -.2744
                                           180.000   -.2819 -.2711
                                           195.000   -.2821 -.2907
                                           210.000   -.2911 -.2983
                                           225.000   -.2829 -.2938
                                           240.000   .0000 -.2974
                                           270.000   -.2606 -.3039
                                           300.000   -.2729 -.2929
                                           330.000   -.2829 -.2919

ALPHA (2) = -.369 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                             PHI
                                              .000 -.2879 -.2843 -.2943
                                            30.000   -.3010 -.3259
                                            60.000   -.3023 -.3063
                                            90.000   -.3005 -.3046
                                           120.000   -.2879 -.2914
                                           135.000   -.2926 -.2984
                                           150.000   -.2902 -.2821
                                           165.000   -.2999 -.2837
                                           180.000   -.2945 -.2848
                                           195.000   -.2986 -.2980
                                           210.000   -.3026 -.3059
                                           225.000   -.3019 -.3059
                                           240.000   .0000 -.2991
                                           270.000   -.2849 -.2907
                                           300.000   -.2758 -.2739
                                           330.000   -.2795 -.3135

ARC11-014IA19 DTS   SRB-NOM MPS-OFF ET BASE   (REU155)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.309 BETA (2) = .012

RADIUS	.000	.333	.667
PHI			
.000	-.2697	-.2551	-.2679
30.000		-.2705	-.2877
60.000		-.2678	-.2772
90.000		-.2727	-.2898
120.000		-.2679	-.2861
135.000		-.2714	-.2788
150.000		-.2722	-.2701
165.000		-.2660	-.2672
180.000		-.2689	-.2561
195.000		-.2670	-.2697
210.000		-.2683	-.2788
225.000		-.2693	-.2775
240.000		.0000	-.2804
270.000		-.2612	-.2844
300.000		-.2547	-.2630
330.000		-.2631	-.2858

ALPHA (2) = -.300 BETA (3) = 4.022

RADIUS	.000	.333	.667
PHI			
.000	-.2913	-.2880	-.3023
30.000		-.2862	-.3058
60.000		-.2845	-.2813
90.000		-.2861	-.2877
120.000		-.2903	-.2999
135.000		-.2967	-.3016
150.000		-.3004	-.3027
165.000		-.2971	-.3019
180.000		-.2912	-.2951
195.000		-.2912	-.2945
210.000		-.2899	-.2951
225.000		-.2915	-.3036
240.000		.0000	-.3113
270.000		-.2974	-.3092
300.000		-.2957	-.3039
330.000		-.2975	-.3282

ALPHA (3) = 3.966 BETA (1) = .003

RADIUS	.000	.333	.667
PHI			
.000	-.2761	-.2654	-.2709
30.000		-.2771	-.2921
60.000		-.2944	-.2760
90.000		-.2852	-.2898
120.000		-.2801	-.3024
135.000		-.2839	-.3005
150.000		-.2832	-.2997
165.000		-.2770	-.2852
180.000		-.2795	-.2736
195.000		-.2747	-.2834

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REUI55)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.966 BETA (1) =   .003   RADIUS   .000   .333   .667
                                             PHI
                                             210.000   -.2728 -.2848
                                             225.000   -.2704 -.2974
                                             240.000   .0000 -.2837
                                             270.000   -.2632 -.2808
                                             300.000   -.2613 -.2629
                                             330.000   -.2641 -.2917

ARC11-014IA19 OTS   SRB-NOM HPS-OFF ET BASE   (REUI56)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   -1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.071 BETA (1) =   .000   RADIUS   .000   .333   .667
                                                PHI
                                                 .000   -.2207 -.2182 -.2178
                                               30.000   -.2211 -.2409
                                               60.000   -.2218 -.2291
                                               90.000   -.2254 -.2395
                                              120.000   -.2219 -.2342
                                              135.000   -.2265 -.2312
                                              150.000   -.2260 -.2231
                                              165.000   -.2228 -.2215
                                              180.000   -.2231 -.2202
                                              195.000   -.2219 -.2337
                                              210.000   -.2223 -.2365
                                              225.000   -.2218 -.2351
                                              240.000   .0000 -.2288
                                              270.000   -.2203 -.2236
                                              300.000   -.2132 -.2178
                                              330.000   -.2121 -.2232

ALPHA (2) = -.294 BETA (1) = -4.000   RADIUS   .000   .333   .667
                                                PHI
                                                 .000   -.2310 -.2263 -.2110
                                               30.000   -.2365 -.2642
                                               60.000   -.2343 -.2417
                                               90.000   -.2364 -.2596
                                              120.000   -.2292 -.2429
                                              135.000   -.2312 -.2318
                                              150.000   -.2324 -.2272
                                              165.000   -.2285 -.2250
                                              180.000   -.2304 -.2257
                                              195.000   -.2310 -.2296
                                              210.000   -.2296 -.2340
                                              225.000   -.2287 -.2398
                                              240.000   .0000 -.2310
                                              270.000   -.2245 -.2180
                                              300.000   -.2155 -.2071
                                              330.000   -.2176 -.2143

ARC11-014IA19 OTS   SRB-NOM MPS-OFF ET BASE   (REU156)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.375 BETA (2) =   .009

RADIUS	.000	.333	.667
PHI			
.000	-.2188	-.2118	-.1923
30.000		-.2198	-.2354
60.000		-.2208	-.2286
90.000		-.2235	-.2319
120.000		-.2215	-.2258
135.000		-.2225	-.2214
150.000		-.2214	-.2186
165.000		-.2189	-.2156
180.000		-.2207	-.2119
195.000		-.2209	-.2289
210.000		-.2201	-.2374
225.000		-.2210	-.2349
240.000		.0000	-.2267
270.000		-.2121	-.2223
300.000		-.2058	-.2036
330.000		-.2095	-.2078

ALPHA (2) = -.423 BETA (3) = 4.028

RADIUS	.000	.333	.667
PHI			
.000	-.2286	-.2240	-.2079
30.000		-.2156	-.2174
60.000		-.2167	-.2143
90.000		-.2193	-.2201
120.000		-.2193	-.2295
135.000		-.2171	-.2318
150.000		-.2154	-.2401
165.000		-.2201	-.2448
180.000		-.2253	-.2340
195.000		-.2273	-.2345
210.000		-.2301	-.2428
225.000		-.2298	-.2488
240.000		.0000	-.2560
270.000		-.2311	-.2386
300.000		-.2289	-.2286
330.000		-.2292	-.2495

ALPHA (3) = 3.834 BETA (1) = -.003

RADIUS	.000	.333	.667
PHI			
.000	-.2101	-.1932	-.2054
30.000		-.2040	-.1988
60.000		-.2094	-.2068
90.000		-.2163	-.2225
120.000		-.2111	-.2184
135.000		-.2150	-.2131
150.000		-.2139	-.2092
165.000		-.2097	-.2056
180.000		-.2102	-.1979
195.000		-.2115	-.2215

ARC11-014IA19 OFS   SRB-NOM MPS-OFF ET BASE   (REUI56)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.834 BETA (1) = -.003   RADIUS   .000   .333   .667
                                              PHI
                                             210.000   -.2093 -.2382
                                             225.000   -.2093 -.2315
                                             240.000   .0000 -.2239
                                             270.000   -.2030 -.2133
                                             300.000   -.1961 -.1946
                                             330.000·   -.1974 -.1934

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+ET BASE   (REVIS7)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
SREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.497 BETA (1) =   .003   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2885 -.2885 -.2912
                                              30.000   -.2951 -.3069
                                              60.000   -.2946 -.3015
                                              90.000   -.2922 -.3109
                                             120.000   -.2847 -.2950
                                             135.000   -.2857 -.2885
                                             150.000   -.2841 -.2864
                                             165.000   -.2765 -.2849
                                             180.000   -.2863 -.2704
                                             195.000   -.2853 -.2998
                                             210.000   -.2856 -.3057
                                             225.000   -.2874 -.3038
                                             240.000   .0000 -.2993
                                             270.000   -.2815 -.2974
                                             300.000   -.2778 -.2916
                                             330.000   -.2853 -.2895

ALPHA (2) = -.339 BETA (1) = -3.997   RADIUS   .000   .333   .667
                                             PHI
                                               .000   -.2792 -.2927 -.2960
                                              30.000   -.2819 -.3091
                                              60.000   -.2842 -.2843
                                              90.000   -.2889 -.2945
                                             120.000   -.2835 -.2963
                                             135.000   -.2983 -.3020
                                             150.000   -.2965 -.3187
                                             165.000   -.2751 -.3104
                                             180.000   -.2712 -.2932
                                             195.000   -.2681 -.2870
                                             210.000   -.2688 -.2793
                                             225.000   -.2670 -.2779
                                             240.000   .0000 -.2749
                                             270.000   -.2706 -.2817
                                             300.000   -.2754 -.2825
                                             330.000   -.2776 -.2930

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+ET BASE   (REUI57)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.465 BETA (2) =   .019

RADIUS	.000	.333	.667
PHI			
.000	-.2631	-.2621	-.2672
30.000		-.2670	-.2853
60.000		-.2664	-.2754
90.000		-.2699	-.2867
120.000		-.2651	-.2717
135.000		-.2653	-.2659
150.000		-.2647	-.2641
165.000		-.2606	-.2612
180.000		-.2615	-.2541
195.000		-.2607	-.2781
210.000		-.2617	-.2827
225.000		-.2623	-.2816
240.000		.0000	-.2792
270.000		-.2579	-.2811
300.000		-.2539	-.2605
330.000		-.2617	-.2761

ALPHA (2) = -.435 BETA (3) = 4.031

RADIUS	.000	.333	.667
PHI			
.000	-.2764	-.2786	-.2944
30.000		-.2739	-.2904
60.000		-.2750	-.2922
90.000		-.2737	-.2803
120.000		-.2693	-.2754
135.000		-.2693	-.2697
150.000		-.2699	-.2697
165.000		-.2661	-.2770
180.000		-.2721	-.2699
195.000		-.2746	-.3160
210.000		-.2816	-.3152
225.000		-.2843	-.3057
240.000		.0000	-.3030
270.000		-.2877	-.2910
300.000		-.2823	-.2952
330.000		-.2785	-.3071

ALPHA (3) = 3.636 BETA (1) =   .003

RADIUS	.000	.333	.667
PHI			
.000	-.2715	-.2607	-.2686
30.000		-.2729	-.2904
60.000		-.2736	-.2750
90.000		-.2774	-.2843
120.000		-.2711	-.2813
135.000		-.2735	-.2783
150.000		-.2729	-.2724
165.000		-.2670	-.2698
180.000		-.2678	-.2664
195.000		-.2673	-.2885

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+ET BASE   (REUI57)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (3) = 3.636 BETA (1) =   .003   RADIUS   .000   .333   .667
                                              PHI
                                              210.000   -.2686 -.2901
                                              225.000   -.2697 -.2865
                                              240.000   .0000 -.2895
                                              270.000   -.2618 -.2779
                                              300.000   -.2580 -.2595
                                              330.000   -.2605 -.2877

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM ET BASE   (REUI58)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .000   RADIUS   .000   .333   .667
                                               PHI
                                                  .000   -.2385 -.2363 -.2392
                                                30.000   -.2402 -.2513
                                                60.000   -.2372 -.2482
                                                90.000   -.2443 -.2612
                                               120.000   -.2418 -.2543
                                               135.000   -.2455 -.2573
                                               150.000   -.2454 -.2543
                                               165.000   -.2424 -.2489
                                               180.000   -.2430 -.2435
                                               195.000   -.2437 -.2645
                                               210.000   -.2406 -.2680
                                               225.000   -.2426 -.2572
                                               240.000   .0000 -.2504
                                               270.000   -.2381 -.2479
                                               300.000   -.2319 -.2409
                                               330.000   -.2339 -.2419

ALPHA (2) = -.342 BETA (1) = 4.028   RADIUS   .000   .333   .667
                                               PHI
                                                  .000   -.2379 -.2387 -.2390
                                                30.000   -.2325 -.2380
                                                60.000   -.2310 -.2398
                                                90.000   -.2260 -.2329
                                               120.000   -.2273 -.2327
                                               135.000   -.2321 -.2325
                                               150.000   -.2344 -.2384
                                               165.000   -.2314 -.2390
                                               180.000   -.2355 -.2321
                                               195.000   -.2370 -.2656
                                               210.000   -.2392 -.2842
                                               225.000   -.2449 -.2845
                                               240.000   .0000 -.2909
                                               270.000   -.2525 -.2650
                                               300.000   -.2491 -.2477
                                               330.000   -.2418 -.2501

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF ET BASE   (REVI59)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) =   .012   RADIUS   .000   .333   .667
                                               PHI
                                                 .000   -.2878   -.2917   -.2907
                                               30.000   -.2996   -.3110
                                               60.000   -.2999   -.3102
                                               90.000   -.2980   -.3137
                                              120.000   -.2920   -.2978
                                              135.000   -.2925   -.2918
                                              150.000   -.2899   -.2855
                                              165.000   -.2856   -.2818
                                              180.000   -.2974   -.2769
                                              195.000   -.2844   -.2993
                                              210.000   -.2842   -.3113
                                              225.000   -.2853   -.3091
                                              240.000   .0000   -.3040
                                              270.000   -.2821   -.3050
                                              300.000   -.2796   -.2952
                                              330.000   -.2851   -.2918

ALPHA (2) = -.375 BETA (1) =   .012   RADIUS   .000   .333   .667
                                               PHI
                                                 .000   -.2618   -.2602   -.2579
                                               30.000   -.2652   -.2773
                                               60.000   -.2639   -.2694
                                               90.000   -.2679   -.2875
                                              120.000   -.2619   -.2727
                                              135.000   -.2641   -.2691
                                              150.000   -.2511   -.2648
                                              165.000   -.2554   -.2618
                                              180.000   -.2604   -.2502
                                              195.000   -.2607   -.2750
                                              210.000   -.2628   -.2821
                                              225.000   -.2635   -.2774
                                              240.000   .0000   -.2727
                                              270.000   -.2544   -.2787
                                              300.000   -.2510   -.2587
                                              330.000   -.2561   -.2693

ARC11-014TA19 OTS-STRUT SRB-NOM MPS-OFF ET BASE   (REV159)

SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (2) = -.333 BETA (2) = 4.031

RADIUS PHI	.000	.333	.667
.000	-.2852	-.2868	-.3000
30.000		-.2830	-.2989
60.000		-.2839	-.2973
90.000		-.2805	-.2872
120.000		-.2743	-.2900
135.000		-.2775	-.2767
150.000		-.2775	-.2842
165.000		-.2754	-.2842
180.000		-.2800	-.2817
195.000		-.2836	-.3229
210.000		-.2876	-.3294
225.000		-.2925	-.3228
240.000		.0000	-.3238
270.000		-.2974	-.3011
300.000		-.2933	-.2959
330.000		-.2907	-.3155

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)ET BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .012   RADIUS   .000   .333   .667
                                                .PHI
                                                  .000   -.2380 -.2410 -.2412
                                                30.000   -.2517 -.2664
                                                60.000   -.2546 -.2576
                                                90.000   -.2538 -.2593
                                               120.000   -.2458 -.2464
                                               135.000   -.2466 -.2381
                                               150.000   -.2470 -.2305
                                               165.000   -.2423 -.2262
                                               180.000   -.2361 -.2334
                                               195.000   -.2383 -.2599
                                               210.000   -.2399 -.2617
                                               225.000   -.2415 -.2577
                                               240.000   .0000 -.2518
                                               270.000   -.2361 -.2474
                                               300.000   -.2317 -.2422
                                               330.000   -.2392 -.2451

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK01)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              621.000   -.3280
                                              622.000   -.4272
                                              623.000   -.3372
                                              624.000   -.3043

ALPHA (2) = -.216 BETA (1) = -4.006   BASE   1.000
                                              TAP NO
                                              621.000   -.2781
                                              622.000   -.3759
                                              623.000   -.2936
                                              624.000   -.2785

ALPHA (2) = -.336 BETA (2) =   .006   BASE   1.000
                                              TAP NO
                                              621.000   -.3063
                                              622.000   -.3898
                                              623.000   -.3125
                                              624.000   -.2971

ALPHA (2) = -.222 BETA (3) = 4.025   BASE   1.000
                                              TAP NO
                                              621.000   -.3410
                                              622.000   -.3719
                                              623.000   -.3358
                                              624.000   -.3069

ALPHA (3) = 3.948 BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              621.000   -.3101
                                              622.000   -.3617
                                              623.000   -.3011
                                              624.000   -.3037

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK02)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.176 BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              621.000   -.5959
                                              622.000   -.6039
                                              623.000   -.5891
                                              624.000   -.5974

ALPHA (2) = -.294 BETA (1) = -4.003   BASE   1.000
                                              TAP NO
                                              621.000   -.5382
                                              622.000   -.5636
                                              623.000   -.5421
                                              624.000   -.5441

ALPHA (2) = -.252 BETA (2) =   .009   BASE   1.000
                                              TAP NO
                                              621.000   -.5693
                                              622.000   -.5875
                                              623.000   -.5748
                                              624.000   -.5852

ALPHA (2) = -.225 BETA (3) = 4.028   BASE   1.000
                                              TAP NO
                                              621.000   -.5647
                                              622.000   -.5801
                                              623.000   -.5669
                                              624.000   -.5839

ALPHA (3) = 4.026 BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              621.000   -.5734
                                              622.000   -.5805
                                              623.000   -.5611
                                              624.000   -.5822

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK03)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.182 BETA (1) =   .003   BASE   1.000
                                                   TAP NO
                                                   621.000   -.5150
                                                   622.000   -.5230
                                                   623.000   -.5209
                                                   624.000   -.5332

ALPHA (2) = -.291 BETA (1) = -3.997   BASE   1.000
                                                   TAP NO
                                                   621.000   -.5106
                                                   622.000   -.5122
                                                   623.000   -.5000
                                                   624.000   -.5175

ALPHA (2) = -.177 BETA (2) =   .016   BASE   1.000
                                                   TAP NO
                                                   621.000   -.5321
                                                   622.000   -.5298
                                                   623.000   -.5279
                                                   624.000   -.5390

ALPHA (2) = -.366 BETA (3) = 4.031   BASE   1.000
                                                   TAP NO
                                                   621.000   -.5137
                                                   622.000   -.5194
                                                   623.000   -.5242
                                                   624.000   -.5335

ALPHA (3) = 3.843 BETA (1) =   .003   BASE   1.000
                                                   TAP NO
                                                   621.000   -.5518
                                                   622.000   -.5442
                                                   623.000   -.5433
                                                   624.000   -.5552

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK04)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

 SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .009   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4354
                                                 622.000   -.4413
                                                 623.000   -.4354
                                                 624.000   -.4444

ALPHA (2) = -.204 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4089
                                                 622.000   -.4310
                                                 623.000   -.3947
                                                 624.000   -.4131

ALPHA (2) = -.306 BETA (2) =   .016   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4423
                                                 622.000   -.4361
                                                 623.000   -.4355
                                                 624.000   -.4430

ALPHA (2) = -.267 BETA (3) = 4.031   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4405
                                                 622.000   -.4443
                                                 623.000   -.4446
                                                 624.000   -.4543

ALPHA (3) = 4.392 BETA (1) =   .012   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4659
                                                 622.000   -.4611
                                                 623.000   -.4555
                                                 624.000   -.4638

ARC11-014IA19 OTS+STRUT SRB-VON MPS-NON SRB BASE   (REUK05)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.114 BETA (1) = -.006   BASE   1.000
                                             TAP NO
                                             621.000   -.4206
                                             622.000   -.5601
                                             623.000   -.4234
                                             624.000   -.4300

ALPHA (2) = -.308 BETA (1) = -4.000   BASE   1.000
                                             TAP NO
                                             621.000   -.3507
                                             622.000   -.4060
                                             623.000   -.3376
                                             624.000   -.3588

ALPHA (2) = -.264 BETA (2) = .016   BASE   1.000
                                             TAP NO
                                             621.000   -.4124
                                             622.000   -.5829
                                             623.000   -.3995
                                             624.000   -.4223

ALPHA (2) = -.348 BETA (3) = 4.028   BASE   1.000
                                             TAP NO
                                             621.000   -.4763
                                             622.000   -.6632
                                             623.000   -.4909
                                             624.000   -.4853

ALPHA (3) = 3.924 BETA (1) = .000   BASE   1.000
                                             TAP NO
                                             621.000   -.4025
                                             622.000   -.5925
                                             623.000   -.3866
                                             624.000   -.4095

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK06)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP = 976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP = 400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

    SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.074 BETA (1) =   .000   BASE   -1.000
                                                 TAP NO
                                                 621.000   -.4743
                                                 622.000   -.5169
                                                 623.000   -.4691
                                                 624.000   -.4956

ALPHA (2) = -.396 BETA (1) = -4.003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4328
                                                 622.000   -.5051
                                                 623.000   -.4195
                                                 624.000   -.4399

ALPHA (2) = -.408 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4741
                                                 622.000   -.5086
                                                 623.000   -.4505
                                                 624.000   -.4815

ALPHA (2) = -.339 BETA (3) = 4.028   BASE   1.000
                                                 TAP NO
                                                 621.000   -.5203
                                                 622.000   -.5397
                                                 623.000   -.5047
                                                 624.000   -.5384

ALPHA (3) = 3.984 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4569
                                                 622.000   -.4992
                                                 623.000   -.4445
                                                 624.000   -.4739

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK07)   (04 FEB 75)

                REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

   SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.131 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3146
                                                 622.000   -.3238
                                                 623.000   -.2950
                                                 624.000   -.3181

ALPHA (2) = -.300 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2844
                                                 622.000   -.3043
                                                 623.000   -.2645
                                                 624.000   -.3029

ALPHA (2) = -.411 BETA (2) =   .012   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3096
                                                 622.000   -.3369
                                                 623.000   -.2916
                                                 624.000   -.3206

ALPHA (2) = -.438 BETA (3) = 4.031   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3876
                                                 622.000   -.3928
                                                 623.000   -.3767
                                                 624.000   -.3971

ALPHA (3) = 3.582 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3365
                                                 622.000   -.3605
                                                 623.000   -.3052
                                                 624.000   -.3485

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK08)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.017 BETA (1) =   .006   BASE   1.000
                                                TAP NO
                                                621.000   -.1520
                                                622.000   -.1958
                                                623.000   -.1644
                                                624.000   -.1728

ALPHA (2) = -.464 BETA (1) = -4.000   BASE   1.000
                                                TAP NO
                                                621.000   -.1501
                                                622.000   -.1671
                                                623.000   -.1348
                                                624.000   -.1544

ALPHA (2) = -.438 BETA (2) =   .016   BASE   1.000
                                                TAP NO
                                                621.000   -.1781
                                                622.000   -.2010
                                                623.000   -.1655
                                                624.000   -.1849

ALPHA (2) = -.456 BETA (3) = 4.028   BASE   1.000
                                                TAP NO
                                                621.000   -.2361
                                                622.000   -.2418
                                                623.000   -.2175
                                                624.000   -.2417

ALPHA (3) = 4.014 BETA (1) =   .009   BASE   1.000
                                                TAP NO
                                                621.000   -.1968
                                                622.000   -.2158
                                                623.000   -.1705
                                                624.000   -.2061

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM SRB BASE   (REUK09)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3102
                                                 622.000   -.4943
                                                 623.000   -.3147
                                                 624.000   -.3237

ALPHA (2) = -.438 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2529
                                                 622.000   -.2893
                                                 623.000   -.2442
                                                 624.000   -.2592

ALPHA (2) = -.525 BETA (2) = -.003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2574
                                                 622.000   -.3714
                                                 623.000   -.2594
                                                 624.000   -.2697

ALPHA (2) = -.441 BETA (3) = 4.025   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2991
                                                 622.000   -.3949
                                                 623.000   -.3036
                                                 624.000   -.3164

ALPHA (3) = 4.050 BETA (1) =   .006   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2507
                                                 622.000   -.3732
                                                 623.000   -.2448
                                                 624.000   -.2475

ARC11-014IA19 DTS+STRUT SRB-LOW MPS-NOM SRB BASE   (REUK19)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.978 BETA (1) = -.006   BASE   1.000
                                                TAP NO
                                                621.000   -.5277
                                                622.000   -.5568
                                                623.000   -.5158
                                                624.000   -.5429

ALPHA (2) = -.387 BETA (1) = -4.003   BASE   1.000
                                                TAP NO
                                                621.000   -.4913
                                                622.000   -.5535
                                                623.000   -.4811
                                                624.000   -.5040

ALPHA (2) = -.429 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                621.000   -.5361
                                                622.000   -.5636
                                                623.000   -.5134
                                                624.000   -.5453

ALPHA (2) = -.384 BETA (3) = 4.028   BASE   1.000
                                                TAP NO
                                                621.000   -.5846
                                                622.000   -.5957
                                                623.000   -.5694
                                                624.000   -.5992

ALPHA (3) = 3.930 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                621.000   -.5635
                                                622.000   -.5978
                                                623.000   -.5373
                                                624.000   -.5696

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM SRB BASE   (REUK11) (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.746 BETA (1) =   .006   BASE   1.000
                                                  TAP NO
                                                  621.000   -.3906
                                                  622.000   -.3917
                                                  623.000   -.3703
                                                  624.000   -.3917

ALPHA (2) = -.444 BETA (1) = -4.000   BASE   1.000
                                                  TAP NO
                                                  621.000   -.3623
                                                  622.000   -.3727
                                                  623.000   -.3500
                                                  624.000   -.3951

ALPHA (2) = -.402 BETA (2) =   .012   BASE   1.000
                                                  TAP NO
                                                  621.000   -.3910
                                                  622.000   -.4059
                                                  623.000   -.3671
                                                  624.000   -.3948

ALPHA (2) = -.324 BETA (3) = 4.034   BASE   1.000.
                                                  TAP NO
                                                  621.000   -.4375
                                                  622.000   -.4377
                                                  623.000   -.4314
                                                  624.000   -.4487

ALPHA (3) = 3.552 BETA (1) =   .003   BASE   1.000
                                                  TAP NO
                                                  621.000   -.4116
                                                  622.000   -.4261
                                                  623.000   -.3792
                                                  624.000   -.4195

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM SRB BASE   (REUK12)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              621.000   -.2370
                                              622.000   -.2716
                                              623.000   -.2458
                                              624.000   -.2553

ALPHA (2) = -.396 BETA (1) = -4.003   BASE   1.000
                                              TAP NO
                                              621.000   -.2057
                                              622.000   -.2372
                                              623.000   -.1966
                                              624.000   -.2156

ALPHA (2) = -.378 BETA (2) =   .006   BASE   1.000
                                              TAP NO
                                              621.000   -.2624
                                              622.000   -.2732
                                              623.000   -.2423
                                              624.000   -.2675

ALPHA (2) = -.315 BETA (3) = 4.025   BASE   1.000
                                              TAP NO
                                              621.000   -.3126
                                              622.000   -.3107
                                              623.000   -.2993
                                              624.000   -.3201

ALPHA (3) = 4.005 BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              621.000   -.2788
                                              622.000   -.2966
                                              623.000   -.2480
                                              624.000   -.2849

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF SRB BASE   (REUK13)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.119 BETA (1) = -.003   BASE   1.000
                                               TAP NO
                                               621.000   -.4288
                                               622.000   -.5978
                                               623.000   -.4347
                                               624.000   -.4498

ALPHA (2) = -.390 BETA (1) = -3.997   BASE   1.000
                                               TAP NO
                                               621.000   -.3649
                                               622.000   -.4711
                                               623.000   -.3581
                                               624.000   -.3739

ALPHA (2) = -.378 BETA (2) =   .016   BASE   1.000
                                               TAP NO
                                               621.000   -.3873
                                               622.000   -.5779
                                               623.000   -.3939
                                               624.000   -.4028

ALPHA (2) = -.327 BETA (3) = 4.028   BASE   1.000
                                               TAP NO
                                               621.000   -.4692
                                               622.000   -.6507
                                               623.000   -.4745
                                               624.000   -.4799

ALPHA (3) = 3.909 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               621.000   -.4079
                                               622.000   -.6077
                                               623.000   -.4059
                                               624.000   -.4141

ARC11-014IA19 OTS+STRUT SRB-N04 MPS-OFF SRB BASE   (REUK14)   (04 FEB 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   1.100
GIMBAL =   1.000

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -5.142 BETA (1) = -.006   BASE   1.000
                                               TAP NO
                                               621.000   -.4347
                                               622.000   -.4966
                                               623.000   -.4409
                                               624.000   -.4595

ALPHA (2) = -.321 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               621.000   -.4181
                                               622.000   -.4925
                                               623.000   -.4008
                                               624.000   -.4291

ALPHA (2) = -.432 BETA (2) =   .016   BASE   1.000
                                               TAP NO
                                               621.000   -.4565
                                               622.000   -.4953
                                               623.000   -.4391
                                               624.000   -.4698

ALPHA (2) = -.396 BETA (3) = 4.025   BASE   1.000
                                               TAP NO
                                               621.000   -.5092
                                               622.000   -.5334
                                               623.000   -.4996
                                               624.000   -.5276

ALPHA (3) = 3.864 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               621.000   -.4576
                                               622.000   -.5027
                                               623.000   -.4459
                                               624.000   -.4759

ARC11-014IA19 OTS+STRUT SRB-NO4 MPS-OFF SRB BASE   (REUK15)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT	
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT	
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT	
SCALE = .0200		

ELV-IB =	8.000	ELV-OB =	4.000
RUDDER =	.000	MACH =	1.250
GIMBAL =	-1.000		

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.118 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               621.000   -.3031
                                               622.000   -.3115
                                               623.000   -.2854
                                               624.000   -.3068

ALPHA (2) = -.390 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               621.000   -.2727
                                               622.000   -.2926
                                               623.000   -.2534
                                               624.000   -.2956

ALPHA (2) = -.363 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               621.000   -.3023
                                               622.000   -.3290
                                               623.000   -.2866
                                               624.000   -.3133

ALPHA (2) = -.294 BETA (3) = 4.028   BASE   1.000
                                               TAP NO
                                               621.000   -.3696
                                               622.000   -.3761
                                               623.000   -.3623
                                               624.000   -.3796

ALPHA (3) = 3.834 BETA (1) =   .012   BASE   1.000
                                               TAP NO
                                               621.000   -.3314
                                               622.000   -.3569
                                               623.000   -.3034
                                               624.000   -.3460

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-OFF SRB BASE   (REUK16)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.099 BETA (1) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.1552
                                                622.000   -.1987
                                                623.000   -.1738
                                                624.000   -.1818

ALPHA (2) = -.399 BETA (1) = -4.000   BASE   1.000
                                                TAP NO
                                                621.000   -.1306
                                                622.000   -.1532
                                                623.000   -.1221
                                                624.000   -.1323

ALPHA (2) = -.291 BETA (2) = -.003   BASE   1.000
                                                TAP NO
                                                621.000   -.1818
                                                622.000   -.2001
                                                623.000   -.1663
                                                624.000   -.1874

ALPHA (2) = -.318 BETA (3) = 4.025   BASE   1.000
                                                TAP NO
                                                621.000   -.2373
                                                622.000   -.2415
                                                623.000   -.2244
                                                624.000   -.2409

ALPHA (3) = 3.861 BETA (1) = -.006   BASE   1.000
                                                TAP NO
                                                621.000   -.1921
                                                622.000   -.2079
                                                623.000   -.1676
                                                624.000   -.2010

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI SRB BASE   (REUK17)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .009   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2521
                                                 622.000   -.3396
                                                 623.000   -.2620
                                                 624.000   -.2705

ALPHA (2) = -.420 BETA (1) = -4.003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2529
                                                 622.000   -.2752
                                                 623.000   -.2490
                                                 624.000   -.2555

ALPHA (2) = -.447 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2462
                                                 622.000   -.3393
                                                 623.000   -.2560
                                                 624.000   -.2602

ALPHA (2) = -.435 BETA (3) = 4.028   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2679
                                                 622.000   -.3395
                                                 623.000   -.2648
                                                 624.000   -.2758

ALPHA (3) = 3.930 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2667
                                                 622.000   -.3752
                                                 623.000   -.2677
                                                 624.000   -.2667

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI SRB BASE   (REUK18)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.998 BETA (1) =   .000   BASE   1.000
                                                  TAP NO
                                                  621.000   -.3263
                                                  622.000   -.3933
                                                  623.000   -.3266
                                                  624.000   -.3494

ALPHA (2) = -.396 BETA (1) = -4.003   BASE   1.000
                                                  TAP NO
                                                  621.000   -.3096
                                                  622.000   -.3915
                                                  623.000   -.2917
                                                  624.000   -.3149

ALPHA (2) = -.438 BETA (2) =   .009   BASE   1.000
                                                  TAP NO
                                                  621.000   -.3371
                                                  622.000   -.3857
                                                  623.000   -.3255
                                                  624.000   -.3521

ALPHA (2) = -.575 BETA (3) = 4.028   BASE   1.000
                                                  TAP NO
                                                  621.000   -.3654
                                                  622.000   -.4045
                                                  623.000   -.3644
                                                  624.000   -.3952

ALPHA (3) = 3.915 BETA (1) =   .000   BASE   1.000
                                                  TAP NO
                                                  621.000   -.3335
                                                  622.000   -.4060
                                                  623.000   -.3413
                                                  624.000   -.3599

ARC11-014IA19 OTS+STRUT SRB-HI MPS-HI SRB BASE   (REUX19)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.185 BETA (1) = -.009   BASE   1.000
                                               TAP NO
                                               621.000   -.1807
                                               622.000   -.2052
                                               623.000   -.1697
                                               624.000   -.1934

ALPHA (2) = -.459 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               621.000   -.1711
                                               622.000   -.1884
                                               623.000   -.1515
                                               624.000   -.1898

ALPHA (2) = -.438 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               621.000   -.1933
                                               622.000   -.2304
                                               623.000   -.1805
                                               624.000   -.2046

ALPHA (2) = -.549 BETA (3) = 4.028   BASE   1.000
                                               TAP NO
                                               621.000   -.2517
                                               622.000   -.2714
                                               623.000   -.2433
                                               624.000   -.2645

ALPHA (3) = 3.518 BETA (1) =   .012   BASE   1.000
                                               TAP NO
                                               621.000   -.2129
                                               622.000   -.2551
                                               623.000   -.1976
                                               624.000   -.2305

ARC11-014IA19 OTS>STRUT SRB-HI MPS-HI SRB BASE   (REUK20)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               621.000   -.0599
                                               622.000   -.1002
                                               623.000   -.0723
                                               624.000   -.0791

ALPHA (2) = -.489 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               621.000   -.0439
                                               622.000   -.0579
                                               623.000   -.0332
                                               624.000   -.0456

ALPHA (2) = -.432 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               621.000   -.0720
                                               622.000   -.0991
                                               623.000   -.0607
                                               624.000   -.0772

ALPHA (2) = -.486 BETA (3) = 4.025   BASE   1.000
                                               TAP NO
                                               621.000   -.1317
                                               622.000   -.1458
                                               623.000   -.1164
                                               624.000   -.1342

ALPHA (3) = 3.657 BETA (1) =   .009   BASE   1.000
                                               TAP NO
                                               621.000   -.0837
                                               622.000   -.1145
                                               623.000   -.0621
                                               624.000   -.0905

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK2I)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.200 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               621.000   -.4212
                                               622.000   -.4357
                                               623.000   -.4247
                                               624.000   -.4311

ALPHA (2) = -.180 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               621.000   -.4067
                                               622.000   -.4272
                                               623.000   -.3929
                                               624.000   -.4090

ALPHA (2) = -.291 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               621.000   -.4383
                                               622.000   -.4353
                                               623.000   -.4290
                                               624.000   -.4367

ALPHA (2) = -.306 BETA (3) = 4.028   BASE   1.000
                                               TAP NO
                                               621.000   -.4406
                                               622.000   -.4439
                                               623.000   -.4428
                                               624.000   -.4539

ALPHA (3) = 3.969 BETA (1) =   .006   BASE   1.000
                                               TAP NO
                                               621.000   -.4597
                                               622.000   -.4577
                                               623.000   -.4525
                                               624.000   -.4619

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK22)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.167 BETA (1) =   .006   BASE   1.000
                                                TAP NO
                                                621.000   -.1445
                                                622.000   -.1932
                                                623.000   -.1591
                                                624.000   -.1667

ALPHA (2) = -.348 BETA (1) = -3.997   BASE   1.000
                                                TAP NO
                                                621.000   -.1435
                                                622.000   -.1609
                                                623.000   -.1269
                                                624.000   -.1480

ALPHA (2) = -.366 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.1681
                                                622.000   -.1909
                                                623.000   -.1546
                                                624.000   -.1746

ALPHA (2) = -.522 BETA (3) = 4.031   BASE   1.000
                                                TAP NO
                                                621.000   -.2222
                                                622.000   -.2299
                                                623.000   -.2052
                                                624.000   -.2274

ALPHA (3) = 3.842 BETA (1) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.1922
                                                622.000   -.2114
                                                623.000   -.1655
                                                624.000   -.2009

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK23)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.047 BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              621.000   -.3336
                                              622.000   -.4283
                                              623.000   -.3413
                                              624.000   -.3075

ALPHA (2) = -.276 BETA (1) = -4.003   BASE   1.000
                                              TAP NO
                                              621.000   -.2985
                                              622.000   -.3866
                                              623.000   -.3182
                                              624.000   -.2935

ALPHA (2) = -.237 BETA (2) =   .009   BASE   1.000
                                              TAP NO
                                              621.000   -.2813
                                              622.000   -.3605
                                              623.000   -.2811
                                              624.000   -.2612

ALPHA (2) = -.195 BETA (3) = 4.028   BASE   1.000
                                              TAP NO
                                              621.000   -.3247
                                              622.000   -.3587
                                              623.000   -.3257
                                              624.000   -.2956

ALPHA (3) = 3.855 BETA (1) =   .003   BASE   1.000
                                              TAP NO
                                              621.000   -.3132
                                              622.000   -.3787
                                              623.000   -.3034
                                              624.000   -.3054

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK24)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1) SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.993 BETA (1) =   .009   BASE   1.000
                                               TAP NO
                                               621.000   -.5871
                                               622.000   -.5981
                                               623.000   -.5767
                                               624.000   -.5920

ALPHA (2) = -.279 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               621.000   -.5351
                                               622.000   -.5610
                                               623.000   -.5418
                                               624.000   -.5440

ALPHA (2) = -.246 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               621.000   -.5614
                                               622.000   -.5816
                                               623.000   -.5697
                                               624.000   -.5918

ALPHA (2) = -.273 BETA (3) = 4.025   BASE   1.000
                                               TAP NO
                                               621.000   -.5554
                                               622.000   -.5719
                                               623.000   -.5586
                                               624.000   -.5766

ALPHA (3) = 3.804 BETA (1) = -.003   BASE   1.000
                                               TAP NO
                                               621.000   -.5552
                                               622.000   -.5763
                                               623.000   -.5598
                                               624.000   -.5789

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK25)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 976.0000 IN. XT		
LREF = 1290.3000 IN.	YMRP = .0000 IN. YT		
BREF = 1290.3000 IN.	ZMRP = 400.0000 IN. ZT		
SCALE = .0200			

ELV-IB =	.000	ELV-OB =	.000
RUDDER =	.000	MACH =	1.250
GIMBAL =	1.000		

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.975 BETA (1) =   .003   BASE   1.000
                                              TAP NO
                                              621.000   -.5018
                                              622.000   -.5134
                                              623.000   -.5097
                                              624.000   -.5256

ALPHA (2) = -.255 BETA (1) = -4.000   BASE   1.000
                                              TAP NO
                                              621.000   -.5070
                                              622.000   -.5048
                                              623.000   -.4962
                                              624.000   -.5154

ALPHA (2) = -.285 BETA (2) =   .012   BASE   1.000
                                              TAP NO
                                              621.000   -.5186
                                              622.000   -.5171
                                              623.000   -.5128
                                              624.000   -.5246

ALPHA (2) = -.189 BETA (3) = 4.031   BASE   1.000
                                              TAP NO
                                              621.000   -.5159
                                              622.000   -.5229
                                              623.000   -.5332
                                              624.000   -.5409

ALPHA (3) = 4.005 BETA (1) =   .003   BASE   1.000
                                              TAP NO
                                              621.000   -.5493
                                              622.000   -.5407
                                              623.000   -.5390
                                              624.000   -.5525

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK26)   (04 FEB 75)

                    REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

    SECTION (1) SRB BASE   DEPENDENT VARIABLE CP

    ALPHA (1) = -3.909 BETA (1) =   .009   BASE   1.000
                                                   TAP NO
                                                   621.000   -.4185
                                                   622.000   -.4338
                                                   623.000   -.4213
                                                   624.000   -.4294

    ALPHA (2) = -.243 BETA (1) = -4.000   BASE   1.000
                                                   TAP NO
                                                   621.000   -.4095
                                                   622.000   -.4234
                                                   623.000   -.3932
                                                   624.000   -.4129

    ALPHA (2) = -.237 BETA (2) =   .012   BASE   1.000
                                                   TAP NO
                                                   621.000   -.4416
                                                   622.000   -.4368
                                                   623.000   -.4373
                                                   624.000   -.4429

    ALPHA (2) = -.234 BETA (3) = 4.031   BASE   1.000
                                                   TAP NO
                                                   621.000   -.4452
                                                   622.000   -.4499
                                                   623.000   -.4541
                                                   624.000   -.4614

    ALPHA (3) = 4.047 BETA (1) =   .006   BASE   1.000
                                                   TAP NO
                                                   621.000   -.4665
                                                   622.000   -.4627
                                                   623.000   -.4558
                                                   624.000   -.4637

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK27)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.125 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               621.000   -.4191
                                               622.000   -.5140
                                               623.000   -.4230
                                               624.000   -.4353

ALPHA (2) = -.396 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               621.000   -.3737
                                               622.000   -.4290
                                               623.000   -.3654
                                               624.000   -.3735

ALPHA (2) = -.408 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               621.000   -.3920
                                               622.000   -.5509
                                               623.000   -.3797
                                               624.000   -.3983

ALPHA (2) = -.336 BETA (3) = 4.025   BASE   1.000
                                               TAP NO
                                               621.000   -.4624
                                               622.000   -.6173
                                               623.000   -.4526
                                               624.000   -.4612

ALPHA (3) = 3.792 BETA (1) = -.003   BASE   1.000
                                               TAP NO
                                               621.000   -.3936
                                               622.000   -.5879
                                               623.000   -.3957
                                               624.000   -.4016

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK28)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.191 BETA (1) =   .003   BASE   1.000
                                                TAP NO
                                                621.000   -.4521
                                                622.000   -.5095
                                                623.000   -.4495
                                                624.000   -.4741

ALPHA (2) = -.465 BETA (1) = -4.003   BASE   1.000
                                                TAP NO
                                                621.000   -.4308
                                                622.000   -.5127
                                                623.000   -.4177
                                                624.000   -.4342

ALPHA (2) = -.447 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.4644
                                                622.000   -.5009
                                                623.000   -.4423
                                                624.000   -.4777

ALPHA (2) = -.405 BETA (3) =   4.031   BASE   1.000
                                                TAP NO
                                                621.000   -.5107
                                                622.000   -.5329
                                                623.000   -.4950
                                                624.000   -.5317

ALPHA (3) = 3.819 BETA (1) =   .009   BASE   1.000
                                                TAP NO
                                                621.000   -.4774
                                                622.000   -.5146
                                                623.000   -.4524
                                                624.000   -.4889

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK29)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.080 BETA (1) =   .006   BASE   1.000
                                               TAP NO
                                               621.000   -.2992
                                               622.000   -.3133
                                               623.000   -.2801
                                               624.000   -.3082

ALPHA (2) = -.375 BETA (1) = -3.997   BASE   1.000
                                               TAP NO
                                               621.000   -.2839
                                               622.000   -.3017
                                               623.000   -.2689
                                               624.000   -.3012

ALPHA (2) = -.408 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               621.000   -.2977
                                               622.000   -.3203
                                               623.000   -.2780
                                               624.000   -.3070

ALPHA (2) = -.381 BETA (3) = 4.031   BASE   1.000
                                               TAP NO
                                               621.000   -.3721
                                               622.000   -.3775
                                               623.000   -.3595
                                               624.000   -.3927

ALPHA (3) = 3.843 BETA (1) =   .003 .   BASE   1.000
                                               TAP NO
                                               621.000   -.3249
                                               622.000   -.3496
                                               623.000   -.2958
                                               624.000   -.3348

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK30)   (04 FEB 75)

                REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

    SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.224 BETA (1) =   .006   BASE   1.000
                                                TAP NO
                                                621.000   -.1526
                                                622.000   -.1994
                                                623.000   -.1597
                                                624.000   -.1719

ALPHA (2) = -.444 BETA (1) = -3.997   BASE   1.000
                                                TAP NO
                                                621.000   -.1621
                                                622.000   -.1728
                                                623.000   -.1395
                                                624.000   -.1615

ALPHA (2) = -.405 BETA (2) =   .016   BASE   1.000
                                                TAP NO
                                                621.000   -.1796
                                                622.000   -.1979
                                                623.000   -.1581
                                                624.000   -.1853

ALPHA (2) = -.360 BETA (3) = 4.031   BASE   1.000
                                                TAP NO
                                                621.000   -.2281
                                                622.000   -.2339
                                                623.000   -.2090
                                                624.000   -.2318

ALPHA (3) = 3.819 BETA (1) =   .009   BASE   1.000
                                                TAP NO
                                                621.000   -.1969
                                                622.000   -.2112
                                                623.000   -.1705
                                                624.000   -.2039

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK30)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.224 BETA (1) =   .006   BASE   1.000
                                               TAP NO
                                               621.000   -.1526
                                               622.000   -.1984
                                               623.000   -.1597
                                               624.000   -.1719

ALPHA (2) = -.444 BETA (1) = -3.997   BASE   1.000
                                               TAP NO
                                               621.000   -.1621
                                               622.000   -.1728
                                               623.000   -.1395
                                               624.000   -.1615

ALPHA (2) = -.405 BETA (2) =   .016   BASE   1.000
                                               TAP NO
                                               621.000   -.1796
                                               622.000   -.1979
                                               623.000   -.1581
                                               624.000   -.1853

ALPHA (2) = -.360 BETA (3) = 4.031   BASE   1.000
                                               TAP NO
                                               621.000   -.2281
                                               622.000   -.2339
                                               623.000   -.2090
                                               624.000   -.2318

ALPHA (3) = 3.819 BETA (1) =   .009   BASE   1.000
                                               TAP NO
                                               621.000   -.1969
                                               622.000   -.2112
                                               623.000   -.1705
                                               624.000   -.2039

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK31)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.020 BETA (1) =   .006   BASE   1.000
                                               TAP NO
                                               621.000   -.3191
                                               622.000   -.4231
                                               623.000   -.3269
                                               624.000   -.2936

ALPHA (2) = -.288 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               621.000   -.2805
                                               622.000   -.3805
                                               623.000   -.3073
                                               624.000   -.2833

ALPHA (2) = -.279 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               621.000   -.2792
                                               622.000   -.3625
                                               623.000   -.2977
                                               624.000   -.2647

ALPHA (2) = -.264 BETA (3) = 4.031   BASE   1.000
                                               TAP NO
                                               621.000   -.3373
                                               622.000   -.3684
                                               623.000   -.3355
                                               624.000   -.3156

ALPHA (3) = 3.978 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               621.000   -.3070
                                               622.000   -.3733
                                               623.000   -.3035
                                               624.000   -.3058

ARC11-014IA19 OIS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK32)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.906 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                               621.000   -.5805
                                               622.000   -.5875
                                               623.000   -.5705
                                               624.000   -.5835

ALPHA (2) = -.255 BETA (1) = -4.000   BASE   1.000
                                                TAP NO
                                               621.000   -.5145
                                               622.000   -.5377
                                               623.000   -.5216
                                               624.000   -.5286

ALPHA (2) = -.213 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                               621.000   -.5242
                                               622.000   -.5461
                                               623.000   -.5312
                                               624.000   -.5439

ALPHA (2) = -.219 BETA (3) = 4.028   BASE   1.000
                                                TAP NO
                                               621.000   -.5252
                                               622.000   -.5422
                                               623.000   -.5307
                                               624.000   -.5458

ALPHA (3) = 3.981 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                               621.000   -.5326
                                               622.000   -.5436
                                               623.000   -.5257
                                               624.000   -.5428

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK33)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.044 BETA (1) =   .003   BASE   1.000
                                              TAP NO
                                              621.000   -.4947
                                              622.000   -.5073
                                              623.000   -.5017
                                              624.000   -.5182

ALPHA (2) = -.198 BETA (1) = -4.000   BASE   1.000
                                              TAP NO
                                              621.000   -.5040
                                              622.000   -.5027
                                              623.000   -.4890
                                              624.000   -.5092

ALPHA (2) = -.162 BETA (2) =   .009   BASE   1.000
                                              TAP NO
                                              621.000   -.5198
                                              622.000   -.5181
                                              623.000   -.5136
                                              624.000   -.5264

ALPHA (2) = -.210 BETA (3) = 4.031   BASE   1.000
                                              TAP NO
                                              621.000   -.5108
                                              622.000   -.5152
                                              623.000   -.5276
                                              624.000   -.5356

ALPHA (3) = 3.846 BETA (1) =   .003   BASE   1.000
                                              TAP NO
                                              621.000   -.5434
                                              622.000   -.5365
                                              623.000   -.5359
                                              624.000   -.5475

ARC11-014IA19 OTS+STRUT SRB-OFF MPS-OFF SRB BASE   (REUK34)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.981 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               621.000   -.4157
                                               622.000   -.4316
                                               623.000   -.4202
                                               624.000   -.4264

ALPHA (2) = -.231 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               621.000   -.4104
                                               622.000   -.4246
                                               623.000   -.3938
                                               624.000   -.4146

ALPHA (2) = -.231 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               621.000   -.4405
                                               622.000   -.4343
                                               623.000   -.4333
                                               624.000   -.4403

ALPHA (2) = -.210 BETA (3) = 4.928   BASE   1.000
                                               TAP NO
                                               621.000   -.4460
                                               622.000   -.4510
                                               623.000   -.4547
                                               624.000   -.4606

ALPHA (3) = 3.930 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               621.000   -.4668
                                               622.000   -.4612
                                               623.000   -.4573
                                               624.000   -.4648

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK35)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.308 BETA (1) =   .009   BASE   1.000
                                                TAP NO
                                                621.000   -.4297
                                                622.000   -.5635
                                                623.000   -.4291
                                                624.000   -.4397

ALPHA (2) = -.390 BETA (1) = -4.000   BASE   1.000
                                                TAP NO
                                                621.000   -.3974
                                                622.000   -.4730
                                                623.000   -.3814
                                                624.000   -.3964

ALPHA (2) = -.384 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.3946
                                                622.000   -.5690
                                                623.000   -.3877
                                                624.000   -.4057

ALPHA (2) = -.345 BETA (3) = 4.025   BASE   1.000
                                                TAP NO
                                                621.000   -.4735
                                                622.000   -.6352
                                                623.000   -.4765
                                                624.000   -.4836

ALPHA (3) = 3.903 BETA (1) =   .006   BASE   1.000
                                                TAP NO
                                                621.000   -.4224
                                                622.000   -.5934
                                                623.000   -.4059
                                                624.000   -.4252

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK36)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.008 BETA (1) =   .003   BASE   1.000
                                              TAP NO
                                              621.000   -.4682
                                              622.000   -.5023
                                              623.000   -.4522
                                              624.000   -.4847

ALPHA (2) = -.342 BETA (1) = -4.000   BASE   1.000
                                              TAP NO
                                              621.000   -.4417
                                              622.000   -.4946
                                              623.000   -.4278
                                              624.000   -.4492

ALPHA (2) = -.318 BETA (2) =   .012   BASE   1.000
                                              TAP NO
                                              621.000   -.4596
                                              622.000   -.4889
                                              623.000   -.4319
                                              624.000   -.4687

ALPHA (2) = -.417 BETA (3) = 4.031   BASE   1.000
                                              TAP NO
                                              621.000   -.5111
                                              622.000   -.5236
                                              623.000   -.4927
                                              624.000   -.5272

ALPHA (3) = 3.717 BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              621.000   -.4981
                                              622.000   -.5244
                                              623.000   -.4619
                                              624.000   -.5059

ARC11-014IA19 OTS+STRUT SRB-NOM MFS-NOM SRB BASE   (REUK37)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.149 BETA (1) =   .006   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3287
                                                 622.000   -.3273
                                                 623.000   -.3012
                                                 624.000   -.3292

ALPHA (2) = -.414 BETA (1) = -4.003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2998
                                                 622.000   -.3148
                                                 623.000   -.2789
                                                 624.000   -.3153

ALPHA (2) = -.459 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3217
                                                 622.000   -.3353
                                                 623.000   -.2987
                                                 624.000   -.3288

ALPHA (2) = -.468 BETA (3) = 4.028   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3731
                                                 622.000   -.3729
                                                 623.000   -.3601
                                                 624.000   -.3814

ALPHA (3) = 3.964 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3499
                                                 622.000   -.3665
                                                 623.000   -.3189
                                                 624.000   -.3643

ARC11-014IA19 OTS+STRUT SRB-NOM MPS-NOM SRB BASE   (REUK38)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   2.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               621.000   -.1667
                                               622.000   -.1983
                                               623.000   -.1754
                                               624.000   -.1871

ALPHA (2) = -.387 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               621.000   -.1379
                                               622.000   -.1577
                                               623.000   -.1226
                                               624.000   -.1429

ALPHA (2) = -.318 BETA (2) =   .009   BASE   1.000
                                               TAP NO
                                               621.000   -.1871
                                               622.000   -.2013
                                               623.000   -.1649
                                               624.000   -.1916

ALPHA (2) = -.354 BETA (3) = 4.031   BASE   1.000
                                               TAP NO
                                               621.000   -.2312
                                               622.000   -.2358
                                               623.000   -.2156
                                               624.000   -.2360

ALPHA (3) = 3.939 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               621.000   -.1911
                                               622.000   -.2047
                                               623.000   -.1604
                                               624.000   -.1954

ARC11-014IA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK39)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.139 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                621.000   -.3107
                                                622.000   -.4320
                                                623.000   -.3245
                                                624.000   -.2962

ALPHA (2) = -4.032 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                621.000   -.2947
                                                622.000   -.3925
                                                623.000   -.3051
                                                624.000   -.2693

ALPHA (3) = -.228 BETA (1) = -4.003   BASE   1.000
                                                TAP NO
                                                621.000   -.2873
                                                622.000   -.3636
                                                623.000   -.2929
                                                624.000   -.2845

ALPHA (3) = -.249 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.2876
                                                622.000   -.3694
                                                623.000   -.2972
                                                624.000   -.2702

ALPHA (3) = -.261 BETA (3) = 4.028   BASE   1.000
                                                TAP NO
                                                621.000   -.3693
                                                622.000   -.3743
                                                623.000   -.3557
                                                624.000   -.3316

ALPHA (4) = 4.032 BETA (1) =   .003   BASE   1.000
                                                TAP NO
                                                621.000   -.3042
                                                622.000   -.3594
                                                623.000   -.3020
                                                624.000   -.2999

ARC11-014IA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK39)

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (5) = 7.920 BETA (1) =   .003   BASE   1.000
                                                TAP NO
                                               621.000   -.3482
                                               622.000   -.4277
                                               623.000   -.3577
                                               624.000   -.3466

ARC11-014TA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK40)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -7.992 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.5464
                                                 622.000   -.5666
                                                 623.000   -.5447
                                                 624.000   -.5398

ALPHA (2) = -4.080 BETA (1) =   .003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.5654
                                                 622.000   -.5735
                                                 623.000   -.5574
                                                 624.000   -.5704

ALPHA (3) = -.225 BETA (1) = -4.000   BASE   1.000
                                                 TAP NO
                                                 621.000   -.5313
                                                 622.000   -.5508
                                                 623.000   -.5269
                                                 624.000   -.5432

ALPHA (3) = -.159 BETA (2) =   .012   BASE   1.000
                                                 TAP NO
                                                 621.000   -.5451
                                                 622.000   -.5644
                                                 623.000   -.5509
                                                 624.000   -.5612

ALPHA (3) = -.312 BETA (3) = 4.028   BASE   1.000
                                                 TAP NO
                                                 621.000   -.5377
                                                 622.000   -.5543
                                                 623.000   -.5419
                                                 624.000   -.5555

ALPHA (4) = 3.885 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 621.000   -.5605
                                                 622.000   -.5740
                                                 623.000   -.5551
                                                 624.000   -.5711

ARC11-014IA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK40)

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (5) = 8.073 BETA (1) =   .000   BASE . 1.000
                                                  TAP NO
                                          621.000   -.6042
                                          622.000   -.6137
                                          623.000   -.5895
                                          624.000   -.6023

ARC11-014IA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK41)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.232 BETA (1) = -.006   BASE   1.000
                                                TAP NO
                                                621.000   -.5010
                                                622.000   -.5035
                                                623.000   -.4998
                                                624.000   -.5003

ALPHA (2) = -4.098 BETA (1) = -.006   BASE   1.000
                                                TAP NO
                                                621.000   -.4912
                                                622.000   -.5035
                                                623.000   -.4985
                                                624.000   -.5137

ALPHA (3) = -.243 BETA (1) = -4.000   BASE   1.000
                                                TAP NO
                                                621.000   -.4918
                                                622.000   -.4993
                                                623.000   -.4773
                                                624.000   -.4801

ALPHA (3) = -.171 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.5187
                                                622.000   -.5179
                                                623.000   -.5124
                                                624.000   -.5252

ALPHA (3) = -.171 BETA (3) = 4.025   BASE   1.000
                                                TAP NO
                                                621.000   -.5214
                                                622.000   -.5275
                                                623.000   -.5396
                                                624.000   -.5470

ALPHA (4) = 7.866 BETA (1) = -.003   BASE   1.000
                                                TAP NO
                                                621.000   -.5960
                                                622.000   -.5850
                                                623.000   -.5722
                                                624.000   -.5917

ARC11-014IA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK42)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.059 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                621.000   -.4157
                                                622.000   -.4357
                                                623.000   -.4196
                                                624.000   -.4250

ALPHA (2) = -.183 BETA (1) = -3.997   BASE   1.000
                                                TAP NO
                                                621.000   -.3973
                                                622.000   -.4214
                                                623.000   -.3839
                                                624.000   -.4006

ALPHA (2) = -.195 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.4405
                                                622.000   -.4364
                                                623.000   -.4325
                                                624.000   -.4404

ALPHA (2) =   .027 BETA (3) = 4.028   BASE   1.000
                                                TAP NO
                                                621.000   -.4578
                                                622.000   -.4601
                                                623.000   -.4514
                                                624.000   -.4683

ALPHA (3) = 3.924 BETA (1) =   .003   BASE   1.000
                                                TAP NO
                                                621.000   -.4577
                                                622.000   -.4515
                                                623.000   -.4473
                                                624.000   -.4571

ALPHA (4) = 7.809 BETA (1) =   .003   BASE   1.000
                                                TAP NO
                                                621.000   -.4817
                                                622.000   -.4724
                                                623.000   -.4574
                                                624.000   -.4819

ARC11-014IA19 OTS   SRB-NOM MPS-OFF SRB BASE   (REUK43)   (04 FEB 76)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.133 BETA (1) =   .003   BASE   1.000
                                                   TAP NO
                                                   621.000   -.4727
                                                   622.000   -.5633
                                                   623.000   -.4772
                                                   624.000   -.4900

ALPHA (2) = -4.002 BETA (1) =   .003   BASE   1.000
                                                   TAP NO
                                                   621.000   -.3760
                                                   622.000   -.5511
                                                   623.000   -.3764
                                                   624.000   -.3904

ALPHA (3) = -.342 BETA (1) = -4.000   BASE   1.000
                                                   TAP NO
                                                   621.000   -.3747
                                                   622.000   -.5449
                                                   623.000   -.3677
                                                   624.000   -.3816

ALPHA (3) = -.357 BETA (2) =   .012   BASE   1.000
                                                   TAP NO
                                                   621.000   -.3797
                                                   622.000   -.5766
                                                   623.000   -.3908
                                                   624.000   -.3936

ALPHA (3) = -.288 BETA (3) = 4.022   BASE   1.000
                                                   TAP NO
                                                   621.000   -.4926
                                                   622.000   -.6226
                                                   623.000   -.4810
                                                   624.000   -.5001

ALPHA (4) = 3.924 BETA (1) =   .000   BASE   1.000
                                                   TAP NO
                                                   621.000   -.3924
                                                   622.000   -.5876
                                                   623.000   -.3797
                                                   624.000   -.3957

ARC11-014IA19 DTS   SRB-NOM MFS-OFF SRB BASE   (REUK43)

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (5) = 7.962 BETA (1) =   .000   BASE   1.000
                                                  TAP NO
                                                  621.000   -.4065
                                                  622.000   -.6022
                                                  623.000   -.3914
                                                  624.000   -.4069

ARC11-014IA19 OTS   SRB-NOM MPS-OFF SRB BASE   (REUK44)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.100
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.106 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               621.000   -.4014
                                               622.000   -.5170
                                               623.000   -.3936
                                               624.000   -.4112

ALPHA (2) = -4.038 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               621.000   -.4436
                                               622.000   -.4820
                                               623.000   -.4350
                                               624.000   -.4623

ALPHA (3) = -.363 BETA (1) = -4.003   BASE   1.000
                                               TAP NO
                                               621.000   -.4334
                                               622.000   -.4963
                                               623.000   -.4207
                                               624.000   -.4433

ALPHA (3) = -.365 BETA (2) =   .012   BASE   1.000
                                               TAP NO
                                               621.000   -.4684
                                               622.000   -.5010
                                               623.000   -.4463
                                               624.000   -.4901

ALPHA (3) = -.393 BETA (3) = 4.022   BASE   1.000
                                               TAP NO
                                               621.000   -.5238
                                               622.000   -.5297
                                               623.000   -.5055
                                               624.000   -.5350

ALPHA (4) = 3.888 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               621.000   -.5024
                                               622.000   -.5353
                                               623.000   -.4792
                                               624.000   -.5154

ARC11-014IA19 DTS   SRB-NOM WPS-OFF SRB BASE   (REUK44)

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (5) = 7.977 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                621.000   -.5337
                                                622.000   -.5612
                                                623.000   -.5092
                                                624.000   -.5309

ARC11-014IA19 OTS   SRB-NO4 MPS-OFF SRB BASE   (REUK45)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.244 BETA (1) = -.009   BASE   1.000
                                              TAP NO
                                              621.000   -.2990
                                              622.000   -.3184
                                              623.000   -.2853
                                              624.000   -.3023

ALPHA (2) = -3.935 BETA (1) = -.009   BASE   1.000
                                              TAP NO
                                              621.000   -.3005
                                              622.000   -.3105
                                              623.000   -.2798
                                              624.000   -.3071

ALPHA (3) = -.309 BETA (1) = -4.000   BASE   1.000
                                              TAP NO
                                              621.000   -.2620
                                              622.000   -.2870
                                              623.000   -.2394
                                              624.000   -.2644

ALPHA (3) = -.360 BETA (2) =   .009   BASE   1.000
                                              TAP NO
                                              621.000   -.3055
                                              622.000   -.3229
                                              623.000   -.2993
                                              624.000   -.3135

ALPHA (3) = -.405 BETA (3) = 4.025   BASE   1.000
                                              TAP NO
                                              621.000   -.3718
                                              622.000   -.3690
                                              623.000   -.3654
                                              624.000   -.3765

ALPHA (4) = 3.871   BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              621.000   -.3307
                                              622.000   -.3498
                                              623.000   -.3015
                                              624.000   -.3429

ARC11-014IA19 OTS   SRB-NOM MPS-OFF SRB BASE   (REUK45)

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (5) = 7.989 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               621.000 -.3745
                                               622.000 -.3894
                                               623.000 -.3408
                                               624.000 -.3652

ARC11-014IA19 OTS   SRB-NOM MPS-OFF SRB BASE   (REUK46)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   .000   ELV-OB =   .000
LREF = 1295.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1295.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -8.175 BETA (1) =   .003   BASE   1.000
                                             TAP NO
                                             621.000   -.1610
                                             622.000   -.2083
                                             623.000   -.1617
                                             624.000   -.1705

ALPHA (2) = -4.002 BETA (1) =   .003   BASE   1.000
                                             TAP NO
                                             621.000   -.1423
                                             622.000   -.1832
                                             623.000   -.1562
                                             624.000   -.1644

ALPHA (3) = -.348 BETA (1) = -4.000   BASE   1.000
                                             TAP NO
                                             621.000   -.1410
                                             622.000   -.1626
                                             623.000   -.1275
                                             624.000   -.1490

ALPHA (3) = -.369 BETA (2) =   .016   BASE   1.000
                                             TAP NO
                                             621.000   -.1750
                                             622.000   -.1929
                                             623.000   -.1597
                                             624.000   -.1821

ALPHA (3) = -.360 BETA (3) = 4.028   BASE   1.000
                                             TAP NO
                                             621.000   -.2201
                                             622.000   -.2275
                                             623.000   -.2088
                                             624.000   -.2253

ALPHA (4) = 3.900 BETA (1) =   .006   BASE   1.000
                                             TAP NO
                                             621.000   -.1945
                                             622.000   -.2028
                                             623.000   -.1559
                                             624.000   -.2029

ARC11-014IA19 OTS   SRB-NOM MPS-OFF SRB BASE   (REUK46)

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (5) = 7.655 BETA (1) =   .005   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2279
                                                 622.000   -.2350
                                                 623.000   -.1928
                                                 624.000   -.2230

ARC11-014IA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK47)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.050 BETA (1) = -.003   BASE   1.000
                                             TAP NO
                                             621.000   -.4225
                                             622.000   -.4445
                                             623.000   -.4279
                                             624.000   -.4323

ALPHA (2) = -.150 BETA (1) = -4.000   BASE   1.000
                                             TAP NO
                                             621.000   -.4012
                                             622.000   -.4182
                                             623.000   -.3862
                                             624.000   -.4026

ALPHA (2) = -.129 BETA (2) =   .009   BASE   1.000
                                             TAP NO
                                             621.000   -.4418
                                             622.000   -.4406
                                             623.000   -.4306
                                             624.000   -.4401

ALPHA (2) = -.234 BETA (3) = 4.028   BASE   1.000
                                             TAP NO
                                             621.000   -.4540
                                             622.000   -.4517
                                             623.000   -.4542
                                             624.000   -.4627

ALPHA (3) = 3.867 BETA (1) =   .009   BASE   1.000
                                             TAP NO
                                             621.000   -.4591
                                             622.000   -.4554
                                             623.000   -.4529
                                             624.000   -.4602

ARC11-014IA19 OTS   SRB-NOM MPS-OFF SRB BASE   (REUK48)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   .000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.143 BETA (1) = -.003   BASE   1.000
                                             TAP NO
                                             621.000   -.1378
                                             622.000   -.1893
                                             623.000   -.1599
                                             624.000   -.1633

ALPHA (2) = -.243 BETA (1) = -4.003   BASE   1.000
                                             TAP NO
                                             621.000   -.1253
                                             622.000   -.1565
                                             623.000   -.1168
                                             624.000   -.1377

ALPHA (2) = -.324 BETA (2) =   .009   BASE   1.000
                                             TAP NO
                                             621.000   -.1692
                                             622.000   -.1934
                                             623.000   -.1587
                                             624.000   -.1750

ALPHA (2) = -.435 BETA (3) = 4.025   BASE   1.000
                                             TAP NO
                                             621.000   -.2148
                                             622.000   -.2219
                                             623.000   -.1981
                                             624.000   -.2200

ALPHA (3) = 4.032 BETA (1) = -.006   BASE   1.000
                                             TAP NO
                                             621.000   -.1867
                                             622.000   -.2008
                                             623.000   -.1622
                                             624.000   -.1975

ARC11-014IA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK49)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.041 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3275
                                                 622.000   -.4225
                                                 623.000   -.3325
                                                 624.000   -.3010

ALPHA (2) = -.198 BETA (1) = -4.003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3015
                                                 622.000   -.3723
                                                 623.000   -.3039
                                                 624.000   -.2923

ALPHA (2) = -.162 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 621.000   -.2967
                                                 622.000   -.3773
                                                 623.000   -.3067
                                                 624.000   -.2822

ALPHA (2) = -.285 BETA (3) = 4.022   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3597
                                                 622.000   -.3675
                                                 623.000   -.3435
                                                 624.000   -.3236

ALPHA (3) = 3.828 BETA (1) = -.003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.3166
                                                 622.000   -.3656
                                                 623.000   -.3060
                                                 624.000   -.3055

ARC11-014IA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK50)   (04 FEB 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   1.100
GIMBAL =   1.000

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.01* BETA (1) =   .003   BASE   1.000
                                               TAP NO
                                               621.000   -.5897
                                               622.000   -.5970
                                               623.000   -.5839
                                               624.000   -.5913

ALPHA (2) = -.162 BETA (1) = -4.000   BASE   1.000
                                               TAP NO
                                               621.000   -.5458
                                               622.000   -.5630
                                               623.000   -.5364
                                               624.000   -.5528

ALPHA (2) = -.141 BETA (2) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.5537
                                                622.000   -.5709
                                                623.000   -.5579
                                                624.000   -.5679

ALPHA (2) = -.234 BETA (3) = 4.025   BASE   1.000
                                                TAP NO
                                                621.000   -.5684
                                                622.000   -.5849
                                                623.000   -.5735
                                                624.000   -.5968

ALPHA (3) = 3.879 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                621.000   -.5773
                                                622.000   -.5834
                                                623.000   -.5624
                                                624.000   -.5848

ARC11-014IA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK51)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.000 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                621.000   -.5030
                                                622.000   -.5103
                                                623.000   -.5078
                                                624.000   -.5187

ALPHA (2) = -.130 BETA (1) = -4.003   BASE   1.000
                                                TAP NO
                                                621.000   -.4892
                                                622.000   -.4991
                                                623.000   -.4758
                                                624.000   -.4740

ALPHA (2) = -.225 BETA (2) =   .009   BASE   1.000
                                                TAP NO
                                                621.000   -.5225
                                                622.000   -.5184
                                                623.000   -.5165
                                                624.000   -.5284

ALPHA (2) = -.252 BETA (3) = 4.022   BASE   1.005
                                                TAP NO
                                                621.000   -.5122
                                                622.000   -.5202
                                                623.000   -.5264
                                                624.000   -.5342

ALPHA (3) = 3.864 BETA (1) =   .000   BASE   1.000
                                                TAP NO
                                                621.000   -.5480
                                                622.000   -.5391
                                                623.000   -.5395
                                                624.000   -.5511

ARC11-014IA19 OTS   SRB-OFF MPS-OFF SRB BASE   (REUK52) (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IS =   9.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. Z*   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.990 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4209
                                                 622.000   -.4421
                                                 623.000   -.4265
                                                 624.000   -.4298

ALPHA (2) = -.198 BETA (1) = -4.003   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4019
                                                 622.000   -.4245
                                                 623.000   -.3875
                                                 624.000   -.4027

ALPHA (2) = -.198 BETA (2) =   .009   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4411
                                                 622.000   -.4408
                                                 623.000   -.4303
                                                 624.000   -.4413

ALPHA (2) = -.186 BETA (3) = 4.022   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4525
                                                 622.000   -.4540
                                                 623.000   -.4531
                                                 624.000   -.4521

ALPHA (3) = 3.960 BETA (1) =   .000   BASE   1.000
                                                 TAP NO
                                                 621.000   -.4567
                                                 622.000   -.4539
                                                 623.000   -.4497
                                                 624.000   -.4579

ARC11-014IA19 DTS   SRB-NOM MPS-OFF SRB BASE   (REUK53)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   .900
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.179 BETA (1) = -.003   BASE   1.000
                                             TAP NO
                                             621.000   -.4030
                                             622.000   -.5935
                                             623.000   -.4151
                                             624.000   -.4338

ALPHA (2) = -.336 BETA (1) = -3.997   BASE   1.000
                                             TAP NO
                                             621.000   -.3724
                                             622.000   -.5472
                                             623.000   -.3648
                                             624.000   -.3738

ALPHA (2) = -.360 BETA (2) =   .012   BASE   1.000
                                             TAP NO
                                             621.000   -.3772
                                             622.000   -.5750
                                             623.000   -.3795
                                             624.000   -.3874

ALPHA (2) = -.411 BETA (3) = 4.022   BASE   1.000
                                             TAP NO
                                             621.000   -.4612
                                             622.000   -.5951
                                             623.000   -.4713
                                             624.000   -.4789

ALPHA (3) = 3.936 BETA (1) = -.006   BASE   1.000
                                             TAP NO
                                             621.000   -.3750
                                             622.000   -.5703
                                             623.000   -.3776
                                             624.000   -.3914

ARC11-014IA19 OTS   SRB-NOM NFS-OFF SRB BASE   (REUK54)   (04 FEB 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

PARAMETRIC DATA

ELV-IB =   8.000   ELV-OB =   4.000
RUDDER =   .000   MACH   =   1.100
GIMBAL =   1.000

ALPHA (1) = -4.14$ BETA (1) =   .000   BASE   1.000
                                              TAP NO
                                              621.000   -.4399
                                              622.000   -.4776
                                              623.000   -.4370
                                              624.000   -.4608

ALPHA (2) = -.315 BETA (1) = -4.003   BASE   1.000
                                              TAP NO
                                              621.000   -.4060
                                              622.000   -.4628
                                              623.000   -.3947
                                              624.000   -.4170

ALPHA (2) = -.327 BETA (2) =   .006   BASE   1.000
                                              TAP NO
                                              621.000   -.4511
                                              622.000   -.4877
                                              623.000   -.4335
                                              624.000   -.4631

ALPHA (2) = -.288 BETA (3) = 4.016   BASE   1.000
                                              TAP NO
                                              621.000   -.5134
                                              622.000   -.5224
                                              623.000   -.4952
                                              624.000   -.5217

ALPHA (3) = 3.915 BETA (1) = -.003   BASE   1.000
                                              TAP NO
                                              621.000   -.4541
                                              622.000   -.4994
                                              623.000   -.4445
                                              624.000   -.4735

ARC11-014IA19 OTS   SRB-NO4 MPS-OFF SRB BASE   (REUK55)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRF =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRF =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRF =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -3.983 BETA (1) =   .000   BASE   1.000
                                             TAP NO
                                             621.000   -.2960
                                             622.000   -.3092
                                             623.000   -.2797
                                             624.000   -.3011

ALPHA (2) = -.369 BETA (1) = -4.000   BASE   1.000
                                             TAP NO
                                             621.000   -.2614
                                             622.000   -.2872
                                             623.000   -.2431
                                             624.000   -.2689

ALPHA (2) = -.309 BETA (2) =   .012   BASE   1.000
                                             TAP NO
                                             621.000   -.3011
                                             622.000   -.3259
                                             623.000   -.2851
                                             624.000   -.3092

ALPHA (2) = -.300 BETA (3) = 4.022   BASE   1.000
                                             TAP NO
                                             621.000   -.3770
                                             622.000   -.3774
                                             623.000   -.3669
                                             624.000   -.3917

ALPHA (3) = 3.966 BETA (1) =   .003   BASE   1.000
                                             TAP NO
                                             621.000   -.3305
                                             622.000   -.3549
                                             623.000   -.3027
                                             624.000   -.3419

ARC11-014IA19 OTS   SRB-NOM MPS-OFF SRB BASE   (REUK56) (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.071 BETA (1) =   .000   BASE   1.000
                                                  TAP NO
                                                  621.000   -.1415
                                                  622.000   -.1930
                                                  623.000   -.1648
                                                  624.000   -.1698

ALPHA (2) = -.294 BETA (1) = -4.000   BASE   1.000
                                                  TAP NO
                                                  621.000   -.1247
                                                  622.000   -.1575
                                                  623.000   -.1198
                                                  624.000   -.1375

ALPHA (2) = -.375 BETA (2) =   .009   BASE   1.000
                                                  TAP NO
                                                  621.000   -.1720
                                                  622.000   -.1984
                                                  623.000   -.1621
                                                  624.000   -.1785

ALPHA (2) = -.423 BETA (3) = 4.028   BASE   1.000
                                                  TAP NO
                                                  621.000   -.2179
                                                  622.000   -.2210
                                                  623.000   -.2015
                                                  624.000   -.2224

ALPHA (3) = 3.834 BETA (1) = -.003   BASE   1.000
                                                  TAP NO
                                                  621.000   -.1742
                                                  622.000   -.1961
                                                  623.000   -.1553
                                                  624.000   -.1913

ARC11-014IA19 OTS+STRUT SRB-NOM+MPS-NOM+SRB BASE   (REUK57)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   6.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.491 BETA (1) =   .003   BASE   1.000
                                             TAP NO
                                             621.000   -.2990
                                             622.000   -.3135
                                             623.000   -.2836
                                             624.000   -.3085

ALPHA (2) = -.339 BETA (1) = -3.997   BASE   1.000
                                             TAP NO
                                             621.000   -.2781
                                             622.000   -.2980
                                             623.000   -.2608
                                             624.000   -.2954

ALPHA (2) = -.465 BETA (2) =   .019   BASE   1.000
                                             TAP NO
                                             621.000   -.3007
                                             622.000   -.3306
                                             623.000   -.2841
                                             624.000   -.3113

ALPHA (2) = -.435 BETA (3) = 4.031   BASE   1.000
                                             TAP NO
                                             621.000   -.3576
                                             622.000   -.3668
                                             623.000   -.3469
                                             624.000   -.3695

ALPHA (3) = 3.636 BETA (1) =   .003   BASE   1.000
                                             TAP NO
                                             621.000   -.3253
                                             622.000   -.3529
                                             623.000   -.2974
                                             624.000   -.3396

ARC11-014IA19 OTS+STRUT SRB-LOW MPS-NOM SRB BASE   (REUK58)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   9.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.400
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.155 BETA (1) =   .000   BASE   1.000
                                               TAP NO
                                               621.000   -.2349
                                               622.000   -.2716
                                               623.000   -.2468
                                               624.000   -.2555

ALPHA (2) = -.342 BETA (1) = 4.028   BASE   1.000
                                               TAP NO
                                               621.000   -.3154
                                               622.000   -.3149
                                               623.000   -.2989
                                               624.000   -.3217

ARC11-014TA19 OTS+STRUT SRB-N04 MPS-OFF SRB BASE   (REUK59)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.069 BETA (1) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.3105
                                                622.000   -.3183
                                                623.000   -.2911
                                                624.000   -.3130

ALPHA (2) = -.375 BETA (1) =   .012   BASE   1.000
                                                TAP NO
                                                621.000   -.3004
                                                622.000   -.3258
                                                623.000   -.2852
                                                624.000   -.3116

ALPHA (2) = -.333 BETA (2) = 4.031   BASE   1.000
                                                TAP NO
                                                621.000   -.3716
                                                622.000   -.3783
                                                623.000   -.3641
                                                624.000   -.3829

ARC11-014IA19 OTS+STRUT SRB-HI HFS-NOM SRB BASE   (REUK60)   (04 FEB 75)

REFERENCE DATA   PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.   XMRP =   976.0000 IN. XT   ELV-IB =   8.000   ELV-OB =   4.000
LREF = 1290.3000 IN.   YMRP =   .0000 IN. YT   RUDDER =   .000   MACH   =   1.250
BREF = 1290.3000 IN.   ZMRP =   400.0000 IN. ZT   GIMBAL =   1.000
SCALE =   .0200

SECTION (1)SRB BASE   DEPENDENT VARIABLE CP

ALPHA (1) = -4.122 BETA (1) =   .012   BASE   1.000
                                              TAP NO
                                              621.000   -.1890
                                              622.000   -.2090
                                              623.000   -.1792
                                              624.000   -.1989